Washington State Department of Transportation
SR99 Bored Tunnel Alternative Design-Build Project

RFP Proposer Questions and Answers, October 8, 2010

Refer to Instructions To Proposers Sections 2.7 and 2.8

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Item Number	Document	Section	Page	Date Initiated	Comment/Question	Response Date	Response
1	TR	2.42.1		06/25/10	Technical requirements require the contractor to provide space for a cabinet to be installed by cellular telephone services provider. We request clarification of the requirements for the cellular providers, including the number and spacing of cabinets, power requirement per location, number of longitudinal conduits, and provisions for cellular radio antennas in the tunnel. Are the cellular services to be held up on the tunnel UPS?	07/02/10	Information on cell service requirements have not been received from the Providers yet. The known requirements are included in TR 2.41. When the requirements are known, they will be provided to all Proposers.
2	TR	2.41.4.2		06/25/10	What RF channels will be used in the tunnel for operation with the Interoperability Gateway? Are dedicated channels for this interoperability to be provided and if so, how many channels, what frequencies etc.	07/02/10	The RFP does not envision the use of common dedicated channels as not all emergency responders have this capability. Instead the RFP requires an interconnection method for rebroadcast on selected responder frequencies.
3	TR	2.30 and 2.31		06/25/10	Discrepancies between Sections 2.30 and 2.31 were noted and suggest that 2.31 be changed to reflect what was modified in 2.30; i.e., mandatory 32 ft spacing of construction joints in U-Walls was revised to apply to walls only. This change was not made to Cut and Cover section but should be.	07/02/10	No changes will be made to TR 2.31. See Addendum 4 for changes to TR 2.30.
4	TR	2.13.4.2.4		06/25/10	The specification indicates that only undercut anchors are allowed for mounting: • structural components, and • non-structural components above 10' unless the anchor loading is predominantly (>90%) shear. Some clarification is needed. Would resin anchored bolts, installed 10' or higher above the next lower surface, be allowed on components (either structural or non-structural) that are not subjected to sustained tensile loading greater than 10% of their tensile capacity?	07/16/10	See addendum 6.
5	TR	2.13.4.3.14 & 2.31.4.3.3.10		06/25/10	The specification does not preclude the use of precast barriers. Is this correct?	07/02/10	See Addendum #4.
6	TR	2.52.8.2 & ITP Form T		06/25/10	We note that the capability to undertake compaction grouting from the tunnel is now a requirement and WSDOT requires compaction grouting from the tunnel to be performed at some locations. Has WSDOT performed new analyses or examined new data that suggest that compaction grouting from the tunnel will be more effective than surface mitigation methods? Are there specific conditions that compaction grouting from the tunnel is anticipated to address?	07/02/10	It is a contract requirement to have the capability to undertake compaction grouting from within the tunnel. During tunneling the Design-Builder is required to mitigate settlement for the ground conditions encountered. Mitigation concepts are provided in Appendix S10, which include compaction grouting as one method. The ITP requires the Design-Builder affirm or propose other mitigation methods (Form T). Appendix S13 (Settlement Mitigation Report) is being updated for revised requirements of 2.32, 2.52, and 2.54, for refinement of mitigation concepts, and for inclusion of mandatory structural mitigation design concepts that were not available at time of RFP issue. WSDOT has not performed new analysis apart from what is reflected in the revisions of these documents.
7	TR	2.52.7.4		06/25/10	In the Draft RFP Group A Buildings had an allowable settlement of 0.75 inches. In the Final RFP, the allowable settlement has been reduced from 0.75 to 0.5 inches for Buildings where compensation grouting is used, but has remained at 0.75 for buildings where other mitigation methods are used. Why has the distinction been made between the criteria for compensation grouting and other mitigation methods?	07/02/10	Compared to other methods, compensation grouting is considered to be more precise and able to achieve control of settlement to the specified 0.5 inch limit and in turn limit potential for building damage. Where other methods are used, such as compaction grouting, the slightly greater settlement limit of 0.75 inch was specified, and the additional risk of damage was considered in the overall evaluation and balance of cost and practicality of mitigation with impact of damage and cost of repair. See the revised Appendix S13 Settlement Mitigation Report for addition information.
8	TR	2.52.7.4 & Table 2-52.8		06/25/10	The allowable angular distortion is defined as L/600, where L is defined as the distance between settlement reference points or major structure elements, in inches. This criterion seems inconsistent with published literature. Can the rationale for this criterion be clarified?	07/02/10	The angular distortion is based on 0.5 inches of settlement over 25 feet, which in foundation engineering is a typical differential settlement tolerated by structures with a column spacing of 25 feet. No clarification to be made in TR.
9	TR	2.52.7.4		06/25/10	We note that the maximum allowable settlement for roads and utilities varies from 1 to 3 inches in different zone along the alignment. What factors have been considered in setting the settlement criteria for roads and utilities?	07/02/10	Factors considered include risk of damage to infrastructure from larger ground deformations, learning curve for start-up of TBM, ground cover, and weak soils. See Section 8.2.4 of Appendix S13.
10	Appendix S13			06/25/10	Will appendix S-13 be completed with the deformation and damage calculations that lead to the new mitigation requirements specified in 8.4?	07/02/10	See Addendum 4. Mitigation requirements have been updated and conformed in the revisions to Appendix S13 and TR 2.52.

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11	TR	2.8.4.3.2.1		06/25/10	The requirement to accommodate archaeological investigations in the North Area and South Area is quite restrictive and impractical from a cost effective construction standpoint. While the requirement for "excavation in 4 inch lifts" can generally be accomplished in a manner satisfactory to the archaeologists, it will be at a substantial cost in time and money, and it will not be possible in the excavation for the support of excavation system. Please reconsider and clarify these requirements.	07/16/10	As detailed in TR Section 2.8.4.3.2.1, the 4" lifts are a requirement for mass excavation at specific target elevations within the North Area and South Area illustrated in Appendix E22 (see Addendum 4). The 4" lifts for excavation are not anticipated to be required for the construction of support of excavation walls but may be required depending upon the means and methods chosen. Note that the provisions described in Section 2.8.4.3 in reference to Cultural Resources have not been reviewed by Department of Archaeology and Historic Preservation, tribes, or other Section 106 consulting parties and may be subject to change during the development of the Final Section 106 Memorandum of Agreement. For the purposes of the bid, the Proposer should assume that the 4" lift requirement will not apply to the support of excavation.
12	Sub Appendix C.3 of the GEDR			06/25/10	We request that the pump test data be provided in a useable electronic format (not pdf format).	07/02/10	See Future Addendum.
13	TR	2.32.4.4.4 & 2.32.4.5.3		06/25/10	Section 2.32.4.4.4 requires providing select rings with angled drill guides for drilling and grouting forward of tunnel lining ring yet third bullet of Section 2.32.4.5.3 requires every segment to have angled grout holes for drilling forward of tunnel lining. This appears to be a discrepancy with large potential cost implication. Please clarify.	07/02/10	See Addendum 4 for clarifications as follows: 2.32.4.4.4: Added requirement for a minimum of 100 rings of lining to have angled drill guides. 2.32.4.5.3: Added reference back to 2.32.4.4.4 for the number of rings of lining required. Clarified one radial grout hole required for each segment.
14	TR	2.31.3.4		06/25/10	The requirements state that the entire tunnel structure shall be designed to prevent structural failure and progressive collapse when subjected to a hydrocarbon fire curve. Please confirm that the hydrocarbon fire is in the roadway, and that the design need only consider the hydrocarbon fire curve to apply to surfaces that could reasonably be exposed to the fire. Please also confirm what fire requirements should apply to any areas or surfaces that would not be expected to be exposed to the hydrocarbon fire.	07/02/10	The design 100 MW hydrocarbon fire is in the roadway. The NFPA 502 temperature requirements for concrete and reinforcement apply to surfaces in the roadway and vent plenum (including the tunnel liner where applicable). Other areas of the tunnel should be designed to meet the Seattle Fire Code as modified by Appendices Z5 and Z7.
15	TR	2.32.5.5.2.5		06/25/10	"Deviation of design diameter" in the table is defined as +/-1.5 inches. Experience from past projects suggests that this requirement is difficult to achieve for tunnels of even half this diameter. Given this would WSDOT consider relaxing this requirement to a more achievable value of 6 inches provided this value is incorporated into the design?	07/02/10	See Addendum 4. Revised to +/- 3 inches, which corresponds to approximately 0.5% of the tunnel diameter.
16	TR	2.32.5.5.2.5		06/25/10	The table of tolerances defines that "The actual leading edge of the lining shall not deviate from theoretical location by more than 0.25 inch". It is not clear what the intent of this requirement is and how this theoretical location is defined. Please clarify.	07/02/10	Intent is to keep the tunnel ring installed vertically, or in the theoretical plane through the tunnel cross-section allowing for vertical and horizontal curvature of the tunnel alignment. Tunnel alignment and TBM steering software are expected to provide the coordinate geometry information to indicate to the tunnel crew the deviation of the current as-erected ring of lining from a theoretical location and any change required in setting the next ring of lining as an integral part of driving the tunnel on line and grade.
17	TR	2.32.4.5.4		06/25/10	Section 2.32.4.5.4 is entitled elastomeric gaskets. However, hydrophilic gaskets are also referred to in the text. The application of the final bullet point in this section (lines 28 to 35 on page 3.32-15) clearly applies to hydrophilic gaskets only. Please confirm which (if any) of the previous bullet points (from line 30 on 2.32-13 to line 27 on 2.32-15) refers to hydrophilic gaskets.	07/02/10	See Addendum 4 for clarifications. The last bullet only applies to hydrophilic seals. None of the previous bullet points apply to hydrophilic seals.
18	TR	2.32.5.9.9.3		06/25/10	Bullet point 7 (lines 30-39) States that the level of the invert in a monitored ring shall be measured immediately before and after shoving for the next five rings. Any monitoring point in the tunnel invert would be obstructed by the segment feeder. Please confirm that it is acceptable to measure points as close as practicable to the invert.	07/02/10	It is acceptable to measure points as close as practicable to the invert.
19	Appendix M11			06/25/10	As part of the H2K project (recently awarded) the BNSF Sig Tail track has been shifted East of its existing location about 25'. This will move the new tail track close to the cut and cover structures. Can this portion of the tail track be moved into the SR 99 Bored Tunnel Contract to minimize construction staging issues in support of the tunneling operations? Can we delay the construction until the end of our contract when we are doing surface restoration?	07/02/10	No, the tail track must be moved in it's entirety under the Holgate to King Stage 2 contract to accommodate staging and sequencing of the work. The tail track must remain operational at all times throughout construction.

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20	TR	2.35.4.2	2.35-9	07/08/10	"The air intake for smoke capture downstream of the fire shall have a maximum length of 500 feet." We take this to mean that smoke from a fire is extracted from the roadway compartment over a maximum distance of 500 feet. Does the requirement for smoke extraction over a maximum of 500 feet along the tunnel apply to the full length of the cut and cover tunnel sections?	7/16/2010 7/30/10	Yes, that is the requirement in 2.35.4.2 unless an ATC is submitted and approved. The Design-Builder's ventilation design, confirmed by the required computational fluid dynamics model, shall determine the actual equipment, including operating duty, location and operational modes, as necessary to meet the requirements of NFPA 502. Dependent on the Design-Builder's design the tunnel ventilation criteria recognizes that exhaust ducts and intake dampers may not be possible for the full extent of the tunnel and therefore permits the use of jet fans to provide adequate ventilation to establish a tenable environment in these areas by controlling the movement of heat and smoke.
21	TR	2.31.4.2.2	2.31-17 thru 23	07/08/10	This section states that epoxy coated reinforcing steel shall be used for all permanent concrete members when the concrete surface is in contact with soil/water or waterproofing. Does this mean both the interior and exterior vertical as well as longitudinal reinforcement in the walls, base and roof slabs require epoxy coated reinforcing steel because they are part of the permanent member.	07/16/10	Epoxy-coated reinforcing bar is required for the vertical and horizontal reinforcing of the exterior surface only of the walls, base and top slabs adjacent to the waterproofing and any cross-ties/interior wall reinforcing with hook lengths that extend vertically or horizontally along the exterior mat of reinforcing.
22	TR	2.30.4.2.2	2.30-25 thru 30	07/08/10	This section states that epoxy coated reinforcing steel shall be used on each surface for all permanent concrete members when the concrete surface is in contact with soil/water or waterproofing. Does this mean both the interior and exterior vertical as well as longitudinal reinforcement in the walls, base and roof slabs require epoxy coated reinforcing steel because they are part of the permanent member.	07/16/10	Epoxy-coated reinforcing bar is required for the vertical and horizontal reinforcing of the exterior surface only of the walls, base and top slabs adjacent to the waterproofing and any cross-ties/interior wall reinforcing with hook lengths that extend vertically or horizontally along the exterior mat of reinforcing.
23			FP301	07/08/10	Utilidor lift is indicated to go through egress corridor. Please verify utilidor lift location.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** In these reference drawings, the utilidor lift is on the west side of the tunnel and is a two-stop lift, utilidor and egress corridor stops. This is a maintenance use only lift and is not intended for public access. Access is required for unencumbered vehicle access. This could be achieved through a lift, as shown or possibly as a ramp between the two areas. See 2.33.4.8 and 2.45.4.1.4.
24			FP301	07/08/10	There is a stair shown to the west between Grids 8 & 9 which appears not to go anywhere. Please confirm that we should delete this stair.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** In these reference drawings, the egress passage is a multiple run stair requiring a stair transfer to go over the top of the tunnel.
25			FP302	07/08/10	The relationship between the tunnel egress stair and two other stairs shown between Grids 8 and 10 is confusing. One is mentioned above on Sheet FP301 and might be deleted however the other stair is not accessible from the tunnel egress as shown. Please confirm intent.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** AR004 shows the clear path for the stair intention. The egress corridor, as mentioned above, requires a horizontal transfer. Once the pedestrians are above the tunnel, they walk over the top of the tunnel, under the building, into the stair shaft shown (N-TS57) leading to the street.
26			FP303	07/08/10	It does not appear that a truck of the size indicated for the Receiving and Loading Bays can be maneuvered into the southernmost bay due to the dimensions of the alley and the location of a structural column. Please verify that special trucks can be maneuvered as on Drawing FP303.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** Drawing FP303 shows a conceptual layout of the structural for the north building. It is the Design Builder's responsibility to configure the structure around the loading dock area to enable trucks to maneuver into the two stalls.
27			AD011	07/08/10	Section does not match the section cut line in the plans. Please confirm that the cut line on the plans is incorrect.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** The cut line noted in plan is correct. However, the section drawing on sheet AD011 erroneously shows the transformer vault opening which should not appear in this section cut location, but should be shown as beyond.

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28			AD011	07/08/10	The transformer vault shown on AD011 is only about 3 feet tall; the written RFP indicates a requirement that this vault be 18' tall per Table 2.45.4.1.5.2.2. Please confirm that we are to revise the vault (S-TS36) to comply with the written direction. This may create difficulties due to the resulting limited clearance for a damper between the roadway and the plenum.	07/16/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents**. In accordance with TR Section, 2.45.4.1.5, "The spaces shown below and on the Conceptual Plans (Appendix M2) are conceptual only, unless otherwise listed as mandatory."
29			AR001	07/08/10	Please confirm that maintenance vehicle access to the egress from the utilidor needs to be provided.	07/16/10	If a utilidor is provided, maintenance vehicle access to the egress from the utilidor is required. See 2.33.4.8 and 2.45.4.1.4.
30			PP001	07/08/10	There is no stair between utilidor and egress stair. Please confirm that stair access from the utilidor to the egress passage is required.	07/30/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents**. Drawing PP001 is not a valid drawing number please clarify what drawing this is in reference to. Stair access is not required between the utilidor and the egress passage.
31	TR	2.45.4.1.1		07/08/10	Forklift. What are the overall dimensions and weight of the forklift envisioned to circulate in the corridors?	07/16/10	See future addendum.
32	TR	2.45.4.1.5.2.3		07/08/10	South Building requirements are for 21' door at elevator. This is taller than required height at levels other than Level 1. Please confirm door height requirement at elevator. There are no floors (except for Level 1) that have a 21' clearance above or below Level 1. The Fan Room has it's own access; the Lay Down Room has a 24' clear height but access through the Phase 2 Garage is limited by 20' overhead doors. Please confirm the need for such a tall elevator cab as, with overruns, this will drive a significantly taller building than documented in the RFP.	07/16/10	See future addendum for clarification.
33	ITP	4.6	45	07/12/10	Is it WSDOT's intention that a Proposal must receive 70,000,000 technical credits for commitments that exceed RFP requirements – or it may be rejected (i.e. a Proposal that used the Concept Roadway Envelope and achieved Substantial Completion at 1,745 days from NTP 2, and received 100% of the remaining available technical credits could be rejected)? Please clarify.	07/23/10	No. See Addendum #5.
34	Contract	18.1.3	80		It is proposed that this section be revised by deleting "was caused by the sole negligence or willful misconduct" in Line 18 and replace with the following: "arises out of the acts, omissions, negligence and/or willful misconduct".	07/30/10	No change. These are legal terms defined by case law.
35	Contract	20.2.6	84		With respect to the retroactive date of the professional liability insurance policy do you mean to require a policy with a retroactive date no later than February 26, 2010 or to coincide with NTP 1?	07/23/10	The retroactive date is meant to cover all design activity that may have been undertaken for the project. The retroactive date will be changed by Addendum to May 26, 2010 when teams will have begun preliminary design activity with issuance of the RFP.
36	Appendix AB2		1		South Building: Occupancy sum of individual occupancy areas does not match area sum shown. Confirm individual occupancy areas. Confirm if individual occupancy areas include all areas related to building allowable area.	07/23/10	**Appendix AB2 is a Reference Document. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** Q1. Occupancies Areas for the South Tunnel Operations Building, according to WSDOT's conceptual design, are: B Operations (Office) 3,507 S2 Maintenance 16,446 U Tunnel Systems 29,070 Total = 49,023 Q2. It is intended that the individual occupancy areas include all areas related to building allowable area.
37	Appendix AB2		1		South & North Buildings: Occupancy Classification: Footnote reference documents do not appear to be included in RFP. Provide Footnote reference documents.	07/23/10	Matrix incorporated into Technical Requirements, 2.45.4.1.5.

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38	Appendix M2		FP101-FP108		South Building: On drawings FP-101 thru FP-108 Section 1/AD012 is cut between grids C & D. Section is cut through elevator. Plan shows elevator between grids B & C. Confirm that Section 1/AD012 should be cut between grids B & C on drawings FP-101 thru FP-108.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** Section 1/AD012 should be cut between grids B & C on drawings FP-101 thru FP-108.
39	Appendix M2		AD-012		South Building: On drawing AD012 the floor for Level -4 grade callout is shown at the bottom of the slab construction. Confirm the grade for the Level -4 floor top of slab.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** In the Conceptual Plans, Level -4 TOS = -56'-0"
40	Appendix M2		AD-011		South Building: On drawing Section 1/AD011 the floor for Level -1 for Rm. Vent Ducts, S-TS30 is shown above the Level -1 grade callout. The scaled difference is 5'-3". On drawing Section 1/AD012 the floor for Level -1 for corridor at the elevator is shown at the Level -1 grade callout. Drawing FP104 shows the Vent Ducts, S-TS30 and elevator lobby at the elevation. Confirm the floor level grade for Vent Ducts, S-TS30.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** In the Conceptual Plan level -1 TOS = -3'-0"
41	Appendix O4.H	5.0	7		Deviation #7 – deviation description discusses alignment N-SB ON 1 and N-SB ON 2, these alignments are not shown on Basic Configuration drawing AL012. Clarification on the deviation descriptions and the application of the deviation.	07/23/10	Alignments N-SB ON 1 and 2 were preliminary alignments at the interface with 6th Avenue and are superseded by the N-SBON Line shown on the Basic Configuration Set. The deviation description and approval is applicable to the N-SBON Line alignment.
42	Appendix M1		CP011		Station BT 287+00, superelevation diagram, left side is called out as +7.0%, it should be +2.0%?	07/30/10	+2% is correct. See future Addendum.
43	Appendix M1		AL012		Bearings for the NB99 alignment labeled on the plan are different from what were measured off from the Microstation master reference file, CL_ALN_NORTH_WSDOT.MST. Curve data for the last curve of NB99 at PI Station 314+25.13 was not provided on the plan. Please provide curve data at PI sta. 314+25.13. Please clarify bearings at the following locations. From PI Sta. 312+56.52 to PI Sta. 314+25.13, N 02^14'30.7" W showed on the plan. Measured as N 1^37'34.6" W per Microstation reference file. Should N 1^37'34.6" W be the correct number?	07/30/10	Bearing shown on the plan is incorrect. Future addendum will correct with the following: The bearing should be N 1^37'34.6" W from PI Sta. 312+56.52 to PI Sta. 314+25.13 Curve Data for PI sta. 314+25.13: Delta: 3^03'51" Right, Radius: 3557', Tangent: 95.13', Length: 190.22', S: 2%
44	Appendix M1		AL012		Bearings for the 6TH AVE alignment labeled on the plan are different from what were measured off from the Microstation master reference file, CL_ALN_NORTH_WSDOT.MST. Please clarify bearings at the following locations. From POB Sta. 307+35.08 to PI Sta. 310+89.70, N 01^28'09.1" E showed on the plan. Measured as N 1^27'28.4" E per Microstation reference file. Should N 1^27'28.4" E be the correct number? From PI Sta. 310+89.70 to PI Sta. 313+82.92, N 43^54'37.8" E showed on the plan. Measured as N 43^47'18.1" E per Microstation reference file. Should N 43^47'18.1" E be the correct number? From PI Sta. 313+82.92 to POE Sta. 317+00.00, N 1^28'09.1" E showed on the plan. Measured as N 1^27'42.3" E per Microstation reference file. Should N 1^27'42.3" E be the correct number?	07/30/10	Bearings shown on the plan are incorrect. A future addendum will correct with the following: The bearing should be N 1^27'28.4" E from PI Sta. 307+35.08 to PI Sta. 310+89.70 The bearing should be N 43^47'18.1" E from PI Sta. 310+89.70 to PI Sta. 313+82.92 The bearing should be N 1^27'42.3" E from PI Sta. 313+82.92 to POE Sta. 317+00.00

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45	06_CL_M6-FINAL	S-END-EOP.alg			NB-eop-RT alignment has a 40'+ offset from the NB alignment around STA 184+00. The alignment does not follow the edge of pavement line in the CL_CHAN_SOUTH_D4_NB.MST file from CL_00_ALN MASTER FILES in the M5 folder. Please clarify.	07/23/10	The EOP line jumps at station NB 184+00, north of this location the edge of pavement is the edge of the mainline pavement. South of this location, in the adjacent SA project, the EOP includes the northbound offramp.
46	Appendix M2	CL_DRAFT TUNNELROW.mst			There is no Draft ROW line shown on the East side of the South portal. Is this information available?	07/23/10	Yes, R/W is shown on the west side of 1st Avenue South, and the east side of Railroad Way S, AL004, AL005.
47	Appendix M1	Opt. 2 ALGN	AL013		No "North" project alignments were included in the RFP documents. Found in: 02_CL_M2-CONCEPTUAL PLANS for RFP(M2)/CL_00_ALN MASTER FILES/00_control_PROJECT ALIGNMENT NAMES.xls Mainlines needed for Cut and Cover design, other alignments needed for coordination between projects. Please include North alignments: NB99, SB99, N-NBOFF, N-SBON, A-LINE, 6-AVE, N-DTR, HAR, THO, JOH, DEN, DEA, CHA, PLU.	07/23/10	North Alignments are provided in the following files: M5\02_CL_M2-FINAL REFERENCE PLANS for RFP (M2)\CL_00_ALN MASTER FILES\CL_ALN_NORTH_WSDOT.MST , and \M5\02_CL_M2-FINAL REFERENCE PLANS for RFP (M2)\CL_00_ALN MASTER FILES\CL_ALN_NORTH_SURF_WSDOT.MST
48	Appendix M2	CL-00_aln	00_control		No "South" project alignments were included in the RFP documents. Found in: 02_CL_M2-CONCEPTUAL PLANS for RFP(M2)/CL_00_ALN MASTER FILES/00_control_PROJECT ALIGNMENT NAMES.xls Needed for coordination between projects. Not including these alignments will hinder development of potentially vital ATCs. Please include South alignments: AT-EB, AT-WB, AW, CO, DAW-E, DAWN, DAWS, DNBR, DSBR, DTNB, DTSB, EM, F, NB, NBE1, NBE2, NBEV1, NBEWR, R, RBW, S, SB, SBEER, SBEV1, UC, WBP, WPW.	07/23/10	South end alignments are included in the reference plan directories.
49	Corridor Operations Concept	4.3.4	24		The enforcement plan will identify pull-over and enforcement locations. In the Chan files provided in M2 there is a note about special use shoulder. Are we to assume this is the only pullout/enforcement area currently proposed? What standards must be followed for the design of these pullover/enforcement areas and where will they be located?	07/23/10	No enforcement areas will be required in the contract. Enforcement areas will be provided by the North Access and South Access contracts, outside the limits of this contract.
50	Appendix M1		RS006, AL005 & AL0012, CP003, CP004, CP011 & CP012		If the alignments are taken as laid out in the plans and the superelevation slope as stated is used the connections of the NB & SB alignments into the south end of the bored tunnel section have a significant vertical difference. This seems to be caused by the shifting of the horizontal pivot point from the CL control line to the Tunnel Center control line within the tunnel. This also occurs for the NB alignment at the North End of the Bored Tunnel. Q1. If the vertical profiles for the NB & SB mainlines in the cut and cover, or the BT itself must be changed to create continuous alignments, would this need to be submitted as an ATC? Q2. Will there be an addendum submitted that will address this problem?	07/23/10	Q1. No Q2. No future addendum. Equations and dimensions are given to correlate the shifting of the profile line and pivot points.
51	Appendix Q2	2.28.2.1.1	2.28-8		TR 2.28.2.1.1 states the Project Quality Manager shall report directly to the person or group with overall Project management responsibilities, e.g. the Project Manager, an offsite principle or project sponsor, or an executive oversight committee established for the project. Appendix Q2 states that the restriction on who they (the Project Quality Manager) report to on the Org chart is the Design Builder's Executive Management. Please clarify that TR 2.28.2.1.1 is correct and that the Design Builder's Executive Management includes the Project Manager, an offsite principle or project sponsor, or an executive oversight committee established for the project.	07/23/10	The Design Builder's Executive Management includes the Project Manager, an offsite principle or project sponsor, or an executive oversight committee established for the project.

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52	Appendix Q2				Appendix Q2 states that the Materials Approval Engineer may be the same person as the Design QA Manager, the Construction QA Manager or the Project Quality Manager. Please confirm that the Materials Approval Engineer may be the same person as the Design QA Manager, the Construction QA Manager or the Project Quality Manager.	07/23/10	The Materials Approval Engineer and Design QA Manager may be the same person. See future addendum.
53	Appendix Q2	2.28.2.1.8	2.28-10		TR 2.28.2.1.8 states –The QA Testing Technicians shall be employed by the Design Builder's or an agent's laboratory and supervised by the QTS. Appendix Q2 states that the restriction on who they (the Q A Testing Technicians) report to on the Org chart is the Construction QA Manager. Please clarify who the QA Testing Technicians and Inspectors report to, and whether they are part of QA or QC.	07/23/10	Supervision can be by the QTS or the CQAM. See future addendum.
54	Appendix Q2				Appendix Q2 states that the Electrical ITS Systems Inspectors cannot be employed by QA organization. Appendix Q2 also states that the restriction on who they (Electrical ITS Systems Inspectors) report to on the Org chart is the Project Quality Manager. Clarify whether the Electrical ITS Systems Inspectors are part of the QA or the QC organization.	07/23/10	The DB will provide both QC and QA for the Electrical and ITS Systems. WSDOT will provide the QV. In addition, the WSDOT Electrical/ITS inspector(s) will inspect for code compliance similar to permit responsibility of L&I and City electrical inspectors on other projects outside of WSDOT jurisdiction. A future addendum will allow the Electrical ITS Systems Inspector(s) to be employed by the QA organization.
55	TR 2.8	Table 2.8-1	2.8-4		Table 2.8-1 lists work that is generally expected to be considered NTP1 Work. Under Geotechnical work, Table 2.8-4, column 1 lists ground disturbance mitigation. Confirm that ground disturbance mitigation is considered to be NTP1 Work.	07/30/10	See Future Addendum. No, ground disturbance mitigation work is not considered NTP 1 Work. The table will be revised to "Ground Disturbance Mitigation Planning"
56	TR	2.32.5.9	2.32-39		Re: Grout Mixes: Check Grouting mix is restricted to a minimum of three parts sand to one part cement. Request that the restriction be removed and/or changed to only compressive strength requirement.	07/23/10	The specification indicates, "in no case to contain more than three parts sand to one part cement by weight". No addendum is necessary.
57	TR	2.32.5.1.8	2.32-22		Re: Tail Seals: A redundant system is required. Does WSDOT consider any more than two sets of brushes lines "redundant"? Request clarification.	07/23/10	The redundant requirement is for one more brush row than calculated as normal. The large circumference presents greater potential for seal damage, thus the requirement for an additional brush row. If 3 brush rows is calculated as normal for the given pressure providing 2 chambers for tail seal grease, then add one more row for a total of 4 brush rows. This will provide 3 chambers for tail seal grease.
58	GBR	3.0	15		Relevance of the GBR Properties: The text indicates some of the baseline soil parameters were based on experience from other projects and not just results of tests for the SR 99 Tunnel project. We understand the GBR comment about small sample size, but would like to distinguish between actual and inferred parameters. Since one of the goals of the GBR is to provide a baseline for subsurface conditions to be encountered in performance of the work, please provide Baseline Ranges and Values from explorations accomplished for the SR 99 project.	07/23/10	A characterization of the data set in the vicinity of the project is provided for reference in CT-6. CT-6, however, does not establish baselines. Baseline values and ranges are provided in the GBR.
59	GBR	3.0	15		Please amend the GBR to include the cross sections presented as Figures 10 through 33 of Appendix G4.F_CT-6 or explain why this information should not be afforded equal weight as the tunnel profile included in the GBR.	07/23/10	The profiles included in the GBR are the baseline for the project. CT-6 is a reference document.
60	GBR	3.0	15		Relevance of the GBR Properties: The GBR refers to the "baseline range and baseline average values" of various soil parameters for various ESUs. Are the Baseline Values actually averages of all the data in the Baseline Ranges? If not, how were the Baseline Values selected?	07/23/10	Baseline values were selected from within the range but are not numeric averages of the data. The baseline values were selected with considerations of the range and variability of the available information, and informed interpretation of both data collected for the project and on observed regional variation.

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61	GBR	3.0	various		Relevance of the GBR Properties: The Design-Build team understand WSDOT's perspective that the basis for demonstration of a differing site condition is the responsibility of the Design-Build team (per the ITP); however we would like to know the how WSDOT weighs the relative importance of the Baseline Range compared to the Baseline Value. Is the Baseline Value accorded any special relevance compared to any other value(s) for parameters within the Baseline Range?	07/23/10	Baseline ranges describe the anticipated range of the data, expected values provide a means of evaluating the likely distribution of data within the range. Both are provided to provide a more complete depiction of property distribution to the bidder. Neither can be viewed in isolation when evaluating the legitimacy of a DSC assertion.
62	GBR	4.1.1.5	38-39		Wood & Debris: Section 4.1.1.5 provides a baseline for concrete debris but also indicates that wood debris will be a significant construction issue. What is WSDOT's opinion as to the amount of wood debris that should be anticipated as a baseline condition in the South Portal cut and cover and U-section excavation? The Design-Build team notes that WSDOT has indicated the amount of >all< debris that is anticipated to be encountered in the north portal excavation (Section 4.1.2.5) but has not for the South Portal - Why?	07/23/10	The amount of wood debris anticipated in the South Portal excavation is baselined on page 39, paragraph 1 of the GBR.
63	TR	2.58	various		The current design information for the Adjacent Contracts as defined in TR Section 2.58.1.1 were not included in the final RFP documents or in Addendums 1 through 3. The information concerning the planning, phasing and construction for these projects which the SR 99 Bored Tunnel project could directly impact or that could directly impact the SR 99 Bored Tunnel project is needed to adequately assess the benefits and costs associated with some alternative proposal approaches. Please provide this additional project information in appropriate electronic formats and project coordinate system.	07/23/10	Additional project information is available upon specific request. Please arrange for a meeting with WSDOT where the specific needs can be discussed allowing data to be made available.
64	TR	2.19.4.1.1	2.19-3, Lines 29 - 39		The Design-Builder shall replace all signs within the Project limits or signs affected by the Project per WSDOT Northwest Region Sign Design Current Practices Manual prior to Contract execution. The DB cannot do any work prior to Contract execution.	07/23/10	See Addendum #6.
65	TR	2.22.3.5.1.2	2.22-9		DB to chair MOT Task Force from Contract Execution to Final Project Completion. Q1. Is it WSDOT's intent that the DB begins performance of this work prior to NTP 1? Q2. Is chairing of this Task Force needed after Substantial Completion when the facility is open to traffic?	07/23/10	Q1. Future addendum to revise Contract Execution to NTP 1 Q2. This task force shall meet on an as needed basis after Substantial Completion, e.g. for the development and execution of traffic control plans needed to complete punchlist work.
66	TR	2.12.3.1.1.4	2.12-5		The Design-Builder shall classify its threats and opportunities in such a way that they are compatible with WSDOT's Risk Breakdown Structure (RBS) found in Appendix V2 and classification system in use on the date of contract award. Is the classification system referred to the matrix on page 2 of Appendix V2? How might it change prior to contract award?	07/23/10	Q1. Yes Q2. The Proposers will update and complete the Project risk assessment as part of their Proposal. No change is anticipated to the risk register prior to contract award.
67	TR	2.1.6.2.2	2.1-22		This section uses a limit of 90 days for approval of the Baseline Contract Schedule before payment may be delayed. This is in conflict with the term of 4 months used in the Contract Article 10.4.4.	07/23/10	Not in conflict. If Baseline is not approved within 90 days (3 months) WSDOT may withhold payments starting in the 4th month.
68	TR	2.33.4.7.1.2	2.33-8		TR Notes "All egress doors shall be 3 feet – 6inches in width." Appendix Z5 March 25,2010 WSDOT letter page 1 under EGRESS, Proposed Design Alternative notes "Doors will be at roadway level and have 44" openings".	07/23/10	The SFD has given verbal concurrence for the 42 inch door and written concurrence is anticipated. The contract requirement is 42 inches as provided in the Technical Requirements.

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69	TR	2.33.4.4.7	2.33-6		TR Notes "Fire rating of 1.5 hours for installation in a 2-hour wall is required for all doors opening to roadway areas. Fire rating of 2 hours for installation in a 2-hour wall is required for all doors within the greater egress enclosure regardless of whether these doors open to exit access areas or into utility areas" Appendix Z5 March 25,2010 WSDOT letter page 1 under EGRESS, Proposed Design Alternative notes "Tunnel will provide refuge areas (areas of evacuation assistance) behind two-hour rated fire doors with independent air supply and ventilation system". Confirm what the fire rating is of the egress enclosure door from the roadway.	07/23/10	The contract requirement will be revised to a 2 hour fire door in all locations. See future addendum.
70	Appendix M2		AR 002 & AR 004		Dwg references Section B/AR004. There is no Section B/AR004. Confirm Section reference on Dwg AR002.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** (Note: Reference to B/AR004 should read Section A/AR004.)
71	Appendix M2		TH 010 - TH 044		Drawings are assumed to be for south half of bored tunnel based on stair direction. Confirm that Dwg TH010 thru TH044 relate to south half of bored tunnel.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** The identified drawings are conceptual, reference only, depicting a typical segment of the bored tunnel, and do not necessarily reflect south half of the bored tunnel. Depiction and orientation of stairs and other features may not fully correspond with each other or the direction of travel, and may not fully depict all RFP requirements .
72	Appendix M2		TH 005		Note 1 states "Typical egress for the north half of the bored tunnel shown. Egresses for the south half of the bored tunnel will be mirrored". We assume that the design shown on Dwg.s TH010 thru TH044 will be mirrored to relate to this note. Confirm that the design shown on Dwg.s TH010 thru TH044 will be mirrored for the north half of the tunnel.	07/23/10	**These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents.** Based on our concept the bored tunnel is mirrored north to south. In concept, if the segment identified was fully depicting the south half of the bored tunnel then north half would be mirrored as practical.
73	TR	2.42.1	2.42-1		The referenced section states that "The Design-Builder shall design the system and provide equipment, conduit and connection vaults, out to the Project limits, to enable the system to be connected by others to the Washington State Department of Transportation (WSDOT) Transportation System Management Center (TSMC) at Dayton Avenue and the I-90 Mount Baker Ridge and Mercer Island tunnels, to be controlled from either location's existing tunnel control system, and if needed, to control the I-90 tunnels from the SR 99 TOC." Please clarify if the Design Builder is required to design the system and provide equipment, conduit and connection vaults that will control the I-90 tunnels from the SR 99 TOC.	07/23/10	Will be clarified by future addendum.
74	TR 2.39 & APP Z7	2.39.4.8 & 11.4.1 respectively		07/20/10	We request clarification of conflicting requirements regarding the list of selected loads required to be powered by the Emergency Generators. TR 2.39.4.8 lists specific equipment required to be powered by the emergency generators. The Tunnel ventilation fans including the large fans in the north and south buildings and the jet fans are not listed and therefore not assumed to be part of the required generator connected equipment. In addition the conceptual one line drawings (Appendix M2 conceptual plans sheets 176 and 177 of 251) do not include the TVS fans as part of the generator connected load. However NFPA 502 as amended by SFD per Appendix Z7 specifically lists ventilation equipment (NFPA 502 - 11.4.1 item 6) and smoke control systems (NFPA 502 - 11.4.1 item 10) as equipment to be connected to the emergency power supply system. We are requesting that WSDOT clarify whether NFPA 502 as amended specifically includes the Tunnel Ventilation System including its associated fans and therefore are required to be connected to the emergency generator systems to power the fans in the event of a power outage.	07/30/10	The tunnel ventilation system, including the exhaust fans and jet fans are each powered by automatically switched transfer between two independent utility power feeders from separate substations. The second utility feeder is the emergency backup power required by NFPA 502 as amended. The generator provides power for the orderly shutdown of the tunnel to traffic due to a regional power outage and provides for maintenance and security during the outage.
75	TR	2.58.7.4.1.3	2.58-14	07/22/10	Does WSDOT have construction records for Pier 48 and will these be made available? Does WSDOT know of any restrictions that would prevent its use as a staging area?	07/23/10	Q1: Records are available and can be viewed upon request. Q2: The DB will have to determine the overall condition and structural capacity of Pier 48 to ascertain any load restrictions. Permits and applicable approvals would have to be obtained by the DB.

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76	TR	2.18 2.42	2.18-25 2.42-1 & 15	07/19/10	This paragraph states the design-builder is responsible for connections between the ITS devices outside of the tunnel and TSMC. Elsewhere it states that the communications between the tunnel and TSMC is by others. Clarify roles and responsibilities for work provided on this contract. Is it correct that the intent is for the DB to provide logic and capacity for the local ITS connections as well as physical connection to ITS interface at portals for extension of the TSMC by others?	07/30/10	The intent stated is correct. Communications conduit and fiber external to the tunnel and south U-section is by others, as described throughout Section 2.42.
77	TR	2.39	2.39-15	07/19/10	Batteries are called out for 60minutes of backup. As the tunnel has two sources of power and a generator, the batteries will only be required to cover the time between loss of power and generator startup. This time is about 5 minutes or less. Is it acceptable to reduce battery capacity to 10-15 minutes?	07/30/10	No. The Department requires this time to allow for problems in bringing the generator on line.
78	TR	2.39	2.39-13	07/19/10	The design has two sources of power as required by NFPA 502. All requirements for standby and emergency power are met by these two sources of utility power. Can the generator be eliminated?	07/30/10	No. The Department requires the generator to permit orderly shutdown of tunnel to traffic in the event of a regional power outage.
79	TR	2.42	2.42-1	07/19/10	Technical requirements state that the system should have the capability to control the I-90 tunnel from SR99 if needed. Clarify requirements needed to provide for controls at I-90?	08/10/10	The requirement to control I-90 from the SR 99 tunnel will be removed by addendum.
80	TR	2.42	2.42-24	07/19/10	Can the look and feel of the ARINC system be accomplished through an interface at the HMI level? Clarify WSDOT intent regarding software platform.	07/30/10	Yes. Section 2.42.8.5 outlines the operator programming, including the emulation you are inquiring about. It identifies the requirement for the Rockwell software which supports this method. WSDOT Operators require software resident on a PC with a large screen and mouse. See Section 2.42.6.3.
81	TR	2.42	2.42-1 & 15	07/19/10	Will the operator at Dayton require access to all information available at the SR99 TOC? Clarify requirements for the interface with TSMC.	08/10/10	Yes. Each operator workstation will require access to all data collected.
82	TR	2.42	2.42-1 & 15	07/19/10	Will the operator at I-90 require access to all information available at SR99 TOC? Clarify requirements for the interface with I-90.	08/10/10	The requirement to control I-90 from the SR 99 tunnel will be removed by addendum.
83	TR	2.42		07/19/10	Regarding to the different highways, tunnels and other similar infrastructures controlled by WSDOT at Dayton TSMC. Clarify requirements for the Dayton TSMC: a. Is there one single application (i.e. software, SCADA….) dealing with all of the them, or each infrastructure has its own application?? b. Is there any high-level integration between the different applications? c. Do all applications share the same data structure than ARINC AIM? d. Are all of them run in the same operator workstations?	07/30/10	a. No. Mt Baker Ridge and Mercer Island have a common application: ARINC AIM. b. No high level integration exists. Section 2.42.4.2 describes the requirements for survivability for this tunnel, which could be adapted to others. See Appendix M4 for information on the existing centralized system used at I-90. c. See Section 2.42.4.1. At present, only the Mt Baker Ridge and Mercer Island tunnels share the ARINC AIM© data structure. The intent, as described in 2.42.4.1, is for the SR 99 tunnel to be the third to share this data structure. d. Workstations at the TSMC are dedicated to specific tunnels.
84	TR	2.42		07/19/10	Clarify requirements at the I-90 TSMC: a. What is the I-90 control servers architecture like? b. Where are they located? Are they at the I-90 tunnel? At the WSDOT offices? Both? c. When no incidents come up, under normal circumstances, which control centre has higher priority to address the duties?	07/30/10	a. See Appendix M4. Redundant application and data servers for each tunnel, attached to redundant parallel bus communication systems. b. See Appendix M4. Servers are at the I-90 tunnel. c. See Section 2.42.6. The primary operations center is the TSMC at Dayton Ave. Also see Concept of Ops Report.
85	TR	2.42		07/19/10	Once the information has been thoroughly analyzed we have not found specifications about the data structure. Even though Appendix M-4E offers info about data, there is no specification about the data structure. Clarify requirements for SCADA data structure? Could WSDOT provide information about the ARINC AIM data structure running the I-90?	08/10/10	The ARINC AIM© data dictionary (with definitive information on the file, record, table and database structure) is proprietary information. WSDOT is currently negotiating working with ARINC to obtain a copy of the data structure. If WSDOT is unable to get a copy of the data structure the requirement for the operating system to have the same look and feel as ARINC will be removed from the contract. This will be clarified by Addendum.
86	TR	2.42		07/19/10	Clarify requirements at the I-90 TSMC: a. Is I-90 control information currently shared/interchanged with other WSDOT's tunnels, roadways, etc...? b. Does this information follow NTCIP?	07/30/10	a. Control is currently only shared between the I-90 tunnel site and the TSMC at Dayton Ave. b. Traffic information, collected for central use and sent out for display on VMS and other devices, follow NTCIP. Physical control of fans, pumps and other electrical and mechanical equipment does not follow NTCIP.
87	TR	2.42		07/19/10	Clarify WSDOT intent regarding software platform: a. Regarding the SR99 tunnel application, would it be possible to use applications different to ARINC AIM (therefore with a different data structure), NTCIP compatible, so interoperability and interchangeability would be ensured? b. In that case, what would the approval procedure be?	07/30/10	a. Yes. b. Section 2.4.10 lays out required demonstration of software to prove the design.

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88	TR Appx	M4	SZ001	07/19/10	Clarify requirements for ferry system connections. Riser drawing for SCADA system identifies connection to ferries loop. This connection is not identified in the Technical Requirements. Please clarify the intent of this statement?	07/30/10	See section 2.42.5. DB is required to provide the optical and cross connect cards in the ONS to permit future connections to be made by others.
89	TR	2.48.3.2.5	2.48-3	07/19/10	TR 2.48.3.2.5 notes location of two elevators. Appendix M2 Dwg SD002 notes “Maintenance Access and Elevator” in vicinity of south exit headhouse. The TR does not reference this location for an elevator. Appendix M2 Dwg AR001 does not identify an elevator at this same location. Confirm that no elevator is required at the south exit headhouse?	07/30/10	The freight/passenger elevator shown on SD002 connects the egress corridor (west side of roadway) with a cross under passage back to the tunnel operations building. There is also a freight/passenger elevator in the tunnel operations building that can then be used by maintenance crew or with an assisted rescue to reach the surface.
90	TR	2.33.4.8	2.33-11	07/19/10	TR 2.33.4.8 notes Space at Emergency Corridor adjacent to service elevators at each end of tunnel must be sufficient so that vehicle is able to make turn into and out of service elevator. TR 2.48.3.2.5 notes location of two elevators. These elevators have no drivable path for vehicle to emergency corridor level. Confirm location and type of elevators for vehicle access to emergency corridor.	07/30/10	The freight/passenger elevator in the tunnel operations building connects via a passage under the roadway to the west side and connects to a second freight elevator to access the emergency egress corridor.
91	TR	2.48.3.2.1	2.48-4	07/19/10	TR 2.48.3.2.1 notes a clear car inside for dual purpose elevators; 161 square feet minimum by 12 feet high and a hoistway entrance and car opening size of 10’-0” wide by 10’-0” high. TR 2.45.4.1.5.1.3 North Building Commons for room name N-BC70 Freight elevator under Equipment Requirements a 16’ tall door. Confirm that the elevator door size is 10 feet high.	8/10/2010	Elevator doors, N-BC70 shall be a minimum door height of 16 feet. Will be revised in future addendum
92	TR	2.48.3.2.1	2.48-4	07/19/10	TR 2.48.3.2.1 notes a clear car inside for dual purpose elevators; 161 square feet minimum by 12 feet high and a hoistway entrance and car opening size of 10’-0” wide by 10’-0” high. TR 2.45.4.1.5.1.3 South Building Commons for room name S-BC70 Freight elevator under Equipment Requirements a 21’ tall door. Confirm that the elevator door size is 10 feet high.	8/10/2010	Elevator doors, S-BC70 shall be a minimum door height of 16 feet. Will be revised in future addendum
93	TR	2.48.3.2.5	2.48-5	07/19/10	TR 2.48.3.2.5 notes a mechanical lift without any reference to location. Appendix M2 Dwg s do not identify a location for a mechanical lift. No mechanical lifts are listed in the TR 2.45.4.1.5 Tunnel Operations Building Program under Equipment Requirements for any room. Confirm that no mechanical lifts are required.	8/10/2010	See 2.33.4.8 and 2.45.4.1.4. The D/B is to provide a way for the maintenance carts to get into the emergency egress corridor from the tunnel operations buildings at both ends of the tunnel. If the geometry and configuration of the tunnel is such that a ramp could be provided instead that would be allowed.
94	TR	2.48.3.2.2	2.48-4	07/19/10	Monorail hoists are described in TR 2.48.3.2.2. None are shown on the Appendix M2 Enlarged Plans Dwg s AD021, AD071-073 or listed in the TR 2.45.4.1.5 Tunnel Operations Building Program under Equipment Requirements for any room. Confirm that no monorail hoists are required.	8/10/2010	The DB is expected to provide suitable equipment for the removal and replacement of equipment. TR 2.48 provides WSDOT requirements for several conceptual means of moving equipment (e.g. monorail hoist, bridge crane, jib crane and mechanical lifts).
95	TR	2.33.4.4.1	2.33-5	07/19/10	TR 2.33.4.4.1 notes “ On each roadway level, both walls facing traffic from the top line of polyester polyurethane finish (3 feet below ceiling): remainder of wall and ceiling is to be painted with modified two part epoxy system, minimum of two coats for 180 microns minimum build.” If fire rated protection board is required for the upper portion of the wall and ceiling, is the modified two part epoxy system required under the fire protection board? Confirm if the modified two part epoxy system is required under the fire protection board.	07/30/10	The modified two part epoxy system is not required under the fire protection board.
96	TR	2.55.4	Page 75 of Addendum #4	07/19/10	P 75 of Addendum 4 indicates the addition of 2.55.4.17.1 thru .6 to page 2.55-15 after line 18 which is actually in 2.55.5.1.2 Calculations. Should the instruction be to insert on page 2.55.15 after line 8?	07/30/10	See Future Addendum. Yes, in Addendum No. 4, page 75, line 19, delete "line 18" and replace with "line 8"
97	TR	2.21	2.21-1	07/19/10	Reference is made to a transportation Discipline Report (TDR) (Appendix E16). Cannot find Appendix E16? Need source?	07/30/10	E16 has not yet been issued. We expect this document to be issued at the end of October.
98	TR	2.58.7.3.3.2	2.58-13	07/19/10	Line 5 and 34: Reference is made to a TR Section 2.58.7.2.1.3 re: traffic movements north of Jackson Street. There is no section called TR 2.58.7.2.1.3? Where is it or should it reference another section?	07/30/10	See Future Addendum. The reference is 2.58.7.3.1.3 and not 2.58.7.2.1.3.

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99	TR	2.42.7.1		7/16/2010 (Received 7/27/10)	The RFP requires "The Design-Builder shall employ a System Integrator to put together the design, programming, demonstration, testing, installation and commissioning of the SCADA System, including the interconnections with the systems listed in TR Section 2.42.4. The Systems Integrator shall have demonstrated experience in complex systems with Allen-Bradley ControlLogix automation equipment, including a minimum of two completed automotive tunnel projects with complete new Allen-Bradley based SCADA systems." We have found the requirement to have specific Allen-Bradley Contrologix systems integration experience for a minimum of two completed automotive tunnel projects to be very restrictive in selection of a qualified Systems Integrator. As a result we would like to confirm if WSDOT would relax the requirement while meeting the intent of the necessary integration experience to include: "The Systems Integrator shall have demonstrated Allen-Bradley ControlLogix experience with complex transportation or industrial projects and the integration of SCADA systems for a minimum of two completed automotive tunnel projects."	7/30/2010	See Future Addendum. A revision similar to the following will be provided: "The Systems Integrator shall demonstrate extensive capability in completion of complex industrial control installations using Allen-Bradley ControlLogix PLCs, Ethernet communications and Rockwell Automation FactoryTalk software. Experience having performed systems integration which included fire suppression, ventilation, power switchgear, lighting, ITS, and voice communications would be preferred."
100	TR	2.48.3.2		7/23/10 (Received 7/27/10)	Confirm requirement for "One Dual Purpose (both freight and passenger service) Elevator" in both North and South Tunnel Operations Building in lieu of separate and dedicated freight and passenger elevators. Due to the passenger requirement, horizontal sliding doors will be required which will drive a larger cab or shaft and will pose potential long-term maintenance issues.	8/10/2010	Requirement for dual purpose was intended to save space, and cost however it is a designer decision. Separate passenger and freight elevators are acceptable at the South Tunnel Operations Building and North Tunnel Operations Building.
101	Appendix M1	Ramps Horizontal Stopping Sight Distance		7/22/10 (Received 7/27/10)	On the S-NBON and N-NBOFF ramps, the horizontal stopping sight distance in the taper area only meet 45 mph requirement. It is our believe that this area should be designed at the mainline design speed, which is 50 mph. **Please advise if WSDOT will maintain the 45 mph design speed by design deviation or revise the design speed to 50 mph and adjust the ramp horizontal geometry accordingly.**	8/10/2010	WSDOT design criteria allow for ramp speeds to be less than mainline speeds. Typically the design-speed for a WSDOT ramp is 5-10 mph below mainline speed with appropriate acceleration/deceleration lengths. No new deviations are required for the roadway design shown in M1 drawings.
102	Appendix M1	Bored Tunnel Superelevation Runoff Length		7/22/10 (Received 7/27/10)	**Please advise if the design-builder is required to submit an ATC for extending the superelevation runoff length inside the bored tunnel.**	8/10/2010	The Design-Builder must follow the roadway design shown in the M1 drawings and TR 2.11 and Appendix O. Changes to the superelevation runoff length can be adjusted as allowed in the WSDOT Design Manual section 1250.07 and 1250.08.
103	TR	2.33.4.7.1.5	2.33-9	7/29/2010 (Received 7/30/10)	TR 2.33.4.7.1.1 notes “Passageways, stairs, and landings at headhouses shall account for convergence of person exiting the tunnel by providing 88 inches minimum unobstructed width.” The Seattle Building Code 1012.8 Intermediate handrails states that “Stairways shall have intermediate handrails located in such a manner so that all portions of the stairway width required for egress capacity are within 30 inches of the handrail.” No exit capacity is identified to substantiate the 88 inch width. An 88 inch wide stair can be provided, but it will have an intermediate handrail at 44 inches. **Confirm that an intermediate handrail is to be provided at the 88 inch wide stair at the headhouse. Provide exit load used to substantiate 88 wide stair at headhouse.**	08/10/10	Follow building code and 88 inches is required per TR 2.33.4.7.1.5.
104	TR	2.33.4.8	2.33-9	7/29/2010 (Received 7/30/10)	TR-2.33.4.8 notes “Space within the Emergency Corridor adjacent to service elevators at each end of the tunnel must be sufficient to allow the maintenance vehicles to turn into and out of the service elevator.” The Seattle Building Code 1021.4 notes that “Elevators shall not open into an exit passageway. Appendix Z5 makes no references to prior agreement that elevators open into exit passageway has been previously approved. **Confirm that elevators will be allowed to open into exit passageway.**	08/10/10	These drawings are for reference only. The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents and Code requirements. Elevators shall not open into an exit passageway. Designer can consider intermediate service room between elevator and egress corridor since Project has an agreement with SFD for service rooms to open into egress corridor H118.

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105				7/29/2010 (Received 7/30/10)	Is the data file used to create the flyover animation available for our use to create the perspective drawings showing the surrounding buildings for the north and south sites? **Confirm is the data file is available for use.**	08/10/10	No, it will not be provided.
106	TR	2.33.4.7.1.1	2.33-8	7/29/2010 (Received 7/30/10)	TR 2.33.4.7.1.1 notes "Areas near the portals may access surface grade via the roadway, provided the pedestrian accessible on-roadway distance to surface grade is less than the maximum allowed Project Fire Code as measured from the last exit access doorway into the tunnel egress enclosure." Surface Grade is not defined in the documents. At the south portal it is possible to locate exits in the tunnels so that they do not exceed a 650ft distance to the end of the U Section. At the north portal the location of surface grade is not clear for either the northbound or southbound roadways. While it may be possible to provide a 650ft distance at the southbound roadway to 6th Ave (approximately 400ft from portal to 6th Ave N, ref dwg AL012), the location of surface grade at the northbound roadway appears to be at Mercer St. (approximately 900ft from portal to Mercer St., ref dwg AL012) **Confirm the definition of Surface Grade.** **Identify the Surface Grade location at the south portal for the northbound and southbound roadway exit distance bench mark.** **Identify the Surface Grade location at the north portal for the northbound and southbound roadway exit distance bench mark.**	09/24/10	Surface grade should be considered to be an at-grade point beyond any enclosing structure. NFPA 502 does not define surface grade. However, NFPA 502 does define "point of safety". For road tunnels the point of safety is, (1) a fire rated exit enclosure that leads to a public way or safe location outside the structure, (2) an at-grade point beyond any enclosing structure, or (3) another area that affords adequate protection of motorists. At the South portal, based on this definition, we would agree that points at the end of the U sections are points of safety since the locations are (2) at-grade and beyond any enclosing structure. We would also agree that it is feasible to provide an exit in the tunnel that is less than 656ft (code distance) from the at-grade locations at the end of the U sections. We have determined this location to be station NB99 184+00 from the basic configuration drawings. At the North Portal, we are working with SFD to define points of safety that afford adequate protection of motorists. We are sending a request for concurrence for design alternative to SFD for the following: From the basic configuration plans at the Station SB99 306+00 for the southbound lanes and Station NB99 307+15 for northbound. A future addendum will include letters to and concurrence letters from SFD.
107	Addendum 2	2.33.4.8		7/29/2010 (Received 7/30/10)	"Space within the Emergency Corridor adjacent to service elevators at each end of the tunnel must be sufficient to allow the maintenance vehicles to turn into and out of the service elevator." Drawing SD002 identifies a "Maintenance Access Stairway and Elevator" at the Head House. Drawing AR001 does not identify an elevator. Drawing SD003 does not identify an elevator. Drawing AR002does not identify an elevator. **Confirm if an elevator required at the south end of the emergency corridor at the headhouse.** **Confirm if an elevator required at the north end of the emergency corridor.**	08/10/10	See response to questions 89 and 90.
108	Addendum 2	2.33.3.4	3	7/29/2010 (Received 7/30/10)	Applicable codes and standards references states "Except where other provisions of the Contract Documents create exceptions, Seattle Building Code chapter 10 "Means of Egress" is to be used as the referenced Project Fire Code. **Confirm that the tunnel egress stairs shall be designed per the requirements of the Seattle Building Code chapter 10 "Means of Egress" and not NFPA 101 (2009).**	08/10/10	No, as the designer of record you must look at all the provisions of the contract for your design.
109	Appendix Z5	Conceptual Egress Analysis	3	7/29/2010 (Received 7/30/10)	Appendix Z5 Conceptual Egress Analysis identifies a 44inch wide stair. Addendum 2 TR 2.33.4.7.13 does not reference clear width in text. NFPA 10 7.2.2.2.1.2 allows 4 1/2inch projection into stair width on each side below handrail height. Seattle Building Code 1012.7 has a similar allowance. **Confirm that 4 1/2inch projection into stair width on each side below handrail height into the 44inch minimum stair width will be allowed.**	08/10/10	A handrail (and only the handrail) may project into the 44 inch wide stairway by 4 1/2inches as described in the code. Additional projections into the stairway must be reviewed and approved. There cannot be any projections into the 44 inch wide walkway leading to the staircase.
110	TR	2.45.4.1.5.1	8	7/29/2010 (Received 7/30/10)	The program for room N-TM24 lists a minimum square foot area of 2,400. Appendix M2 dwg FP 303 lists a square foot area of 1,558 which we have confirmed with the CADD files. **Confirm room N-TM24 minimum square foot area.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.

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111	TR	2.45.4.1.5.1.1	8	7/29/2010 (Received 7/30/10)	The program for room N-TM25 lists a minimum square foot area of 2,400. Appendix M2 dwg FP 303 lists a square foot area of 1,558 which we have confirmed with the CADD files. **Confirm room N-TM25 minimum square foot area.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
112	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 room number N-TM29 is listed for three rooms that include Consumable Parts Inventory, the adjoining Storage and the Office across the corridor. Appendix 2.45.4.1.5.1.1 only lists Consumable Parts Inventory for room number N-TM29. **Confirm program data for room number N-TM29 Storage and N-TM29 Office.**	08/10/10	See future addendum. Mandatory dimensions for N-TM29 Storage are minimum width - 10 feet, minimum length 30 feet, minimum square footage is 300 square feet, minimum height is 12 feet. Mandatory dimensions for N-TM29 Office are minimum width - 21 feet, minimum length 15 feet, minimum square footage is 315 square feet, minimum height is 12 feet.
113	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 room numbers N-TM27, N-TM028 & N-TM30 cannot be located. The rooms are shown on DWG AD073. Appendix 2.45.4.1.5.1.1 lists room numbers N-TM27, N-TM028 & N-TM30 but not rooms N-TS29, N-TS61 & N-TS62. **Confirm room numbers on Dwg FP303 and conform program requirements for room numbers N-TS29, N-TS61 & N-TS62.**	08/10/10	RFP TR 2.45.4.1.5.1.1: N-TM27 Electrical Shop N-TM28 Electronics Shop N-TM30 Electronics/Electrical Storage and corresponds to FP303 N-TS61 Electrical shop N-TS62 Electronics Shop N-TS48 Shared Electronics Electrical Storage. 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the mandatory room dimensions.
114	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 Fan Control Room 1room number is N-TM32. Appendix 2.45.4.1.5.1.2 lists Fan Control Room 1room number is N-TS32. The program for rooms N-TS32 & N-TS33 lists a combined minimum square foot area of 2,100. Appendix M2 dwg FP 303 the square foot area for rooms N-TM32 & N-TS33 was calculated from the CADD files at 1,300. **Confirm room numbers on Dwg FP303 and confirm program requirements for room numbers N-TS32 including the minimum square foot area for rooms N-TS32 & N-TS33.**	08/10/10	FP 303 room number N-TM23 corresponds to 2.45.4.1.5.1.2 N-TS32. The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
115	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Seattle City Light Transformer Vault room number N-TS34 minimum square foot area of 1,998. Appendix M2 dwg FP 303 the square foot area for rooms N-TS34 was calculated from the CADD files at 936. **Confirm minimum square foot area for room N-TS34.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
116	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Low Voltage Switchgear room number N-TS38 minimum square foot area of 3,680. Appendix M2 dwg FP 303 the square foot area for rooms N-TS38 was calculated from the CADD files at 2,870. **Confirm minimum square foot area for room N-TS38.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
117	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 Tunnel Battery Room room number is N-TS64. Appendix 2.45.4.1.5.1.2 lists Tunnel Battery Room room number is N-TS43. **Confirm room numbers on Dwg FP303 and confirm program requirements for room numbers N-TS64.**	08/10/10	N-TS64 corresponds to N-TS43. The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.

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118	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 Tunnel Battery Room room number is N-TS63. Appendix 2.45.4.1.5.1.2 lists Tunnel Battery Room room number is N-TS44. **Confirm room numbers on Dwg FP303 and confirm program requirements for room numbers N-TS63.**	08/10/10	N-TS63 corresponds to N-TS44. The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
119	TR	2.45.4.1.5.2.3	10	7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Freight Elevator Machine Room room number N-BC71 minimum square foot area of 819. Appendix M2 dwg FP 106 the square foot area for room N-BC71 was calculated from the CADD files at 514. **Confirm minimum square foot area for room N-BC71.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
120	TR	2.45.4.1.5.1.2	11	7/29/2010 (Received 7/30/10)	The program for rooms IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51) cannot be located on the drawings. **Confirm the location of rooms IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51).**	08/10/10	IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51) are not shown on the conceptual drawings. The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
121	TR	2.45.4.1.5.1.2	11	7/29/2010 (Received 7/30/10)	The program for rooms IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51) cannot be located on the drawings. **Confirm the location of rooms IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51).**	08/10/10	IDF Room 4 (N-TS49.4), Building Mechanical Room (N-TS50) and Domestic Water Room (N-TS51) are not shown on the conceptual drawings. The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
122	Appendix M2	Drawing FP303		7/29/2010 (Received 7/30/10)	On Dwg FP303 Bldg Fire Suppression Valve Room room number is N-TS59. Appendix 2.45.4.1.5.1.2 lists Bldg Fire Suppression Valve Room room number is N-TS53. **Confirm room numbers on Dwg FP303 and confirm program requirements for room numbers N-TS59.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
123	TR	2.45.4.1.5.2.2	12	7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Ventilation Fan Room room number S-TS30 minimum square foot area of 3,200. Appendix M2 dwg FP 103 the square foot area for room S-TS30 was calculated from the cadd files at 2,570. **Confirm minimum square foot area for room S-TS30.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
124	TR	2.45.4.1.5.2.2	13	7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Radio Equipment Room room number S-TS46 minimum square foot area of 317. Appendix M2 dwg FP 107 the square foot area for room S-TS46 was calculated from the cadd files at 146. **Confirm minimum square foot area for room S-TS46.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.

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125	TR	2.45.4.1.5.2.2	14	7/29/2010 (Received 7/30/10)	Appendix 2.45.4.1.5.1.2 lists Fan Pressurization Room room number S-TS57 minimum square foot area of 1,200. Appendix M2 dwg FP 106 the square foot area for room S-TS30 was calculated from the cadd files at 610. **Confirm minimum square foot area for room S-TS57.**	08/10/10	The only mandatory requirements provided in TR 2.45.4.1.5.1 and TR 2.45.4.1.5.2 are Floor Congruency and this will clarified in a future addendum. The remainder of 2.45.4.1.5.1 and TR 2.45.4.1.5.2 provides recommended dimensions and are for reference. Appendix M2 drawings are conceptual plans and are provided for reference. Actual sizes of building systems and common space shall be determined by the design-builder's design for actual systems and code requirements. TR 2.45.4.1.6 Tunnel Operations Building Mandatory Requirements provides the contract requirements for the mandatory dimensions.
126	ITP			7/29/2010 (Received 7/30/10)	**Can WSDOT provide the Proposal Forms in Word format for ease of adding information required?**	08/10/10	Yes.
127	ITP			7/29/2010 (Received 7/30/10)	**Can WSDOT provide both a current track changes and a current conformed version of the ITP, including Proposal Forms, with future addendums?**	08/10/10	Yes, and has been provided to Proposers.
128	ITP Contract M1	2.11 & Appendix 2		7/29/2010 (Received 7/30/10)	· Changes to Basic Configuration require an approved ATC. ITP 2.11. · Basic Configuration is defined in the Contract as : **Basic Configuration** means the following elements of the Project described or shown in the Technical Requirements Appendices M1 and R1, as such elements may have been modified (with WSDOT's permission) in the Proposal: - Location of tunnel portals - Horizontal and vertical alignments - Number of highway lanes - Lane and shoulder widths - Minimum vertical clearances - Approximate project limits - Project Right of Way limits - Underground tunnel easements - Location and number of tunnel operations buildings · The M1 drawings (Contractual) contain more information than what is covered by the definition in the Contract. **Are ATC's only required for proposed changes to the items listed in the definition of Basic Configuration in the Contract?**	08/10/10	No, an Alternative Technical Concept (ATC) means the concepts proposed by Design-Builder and approved by WSDOT pursuant to the ITP which modify the Basic Configuration or other requirements of the Contract Documents (ATC definition listed in Appendix 2 of the DB Contact Appendices). Also see ITP Section 2.11.
129	ITP TR	2.11.1 2.8.4.1.2	13, 20	7/29/2010 (Received 7/30/10)	ITP Section 2.11.1 states: "Although WSDOT reserves the right in its sole discretion to reject any ATCs, ATC's specifically not eligible for approval include the following: 1. ATCs that are, in WSDOT's sole discretion, deemed not to provide a project that is "equal or better" on an overall basis than the project would be without the ATC. 2. Any ATC that would require excessive time or cost for WSDOT review, evaluation, or investigation." Reading the #1 language the words "equal or better" imply that WSDOT wouldn't accept an ATC unless the betterment it brought would be worth the delay. TR Section 2.8.4.1.2 has some language about changes that trigger permit and commitment changes. It has the language "…alternative construction method or a design change…". It doesn't appear to mention ATCs. Section 2.11.1 of the ITP includes information about the approval or rejections of ATCs. **If WSDOT decides to accept an ATC, then does WSDOT also accept any NEPA delay that ATC may cause based on the language contained in Section 2.11 of the ITP?**	08/10/10	Without having a specific example the answer based upon the information provided would be "no". A delay to NEPA in WSDOT sole discretion could not be deemed to provide a project that is "equal or better" on an overall basis than the project would be without the ATC and NEPA delay. This would not meet WSDOT's Project-specific goals for "On Time and Within Budget". Also note Contract articles: - 2.2(c) General Obligations of Design-Builder; - 3.2.2(b) Third Party Approvals; - 5.10.1 Change Order for Necessary Basic Configuration Change and - 10.1.2 Adjustment in Lump Sum Amount for Delay in Issuance of NTP2 for DB responsibilities for approved ATC's.

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130	TR	2.8	Various	7/29/2010 (Received 7/30/10)	The Design-Builder has a number of state and local permits that will be needed to complete the bored tunnel work. Section 2.8 explains the permits needed to be acquired by the Design-Builder but does not speak directly to permit costs. **Also, the fee structure used by most local agencies is set up for much smaller scale new construction and re-modeling work. It is our understanding that the Design-builder is responsible for all administrative fees from the permitting agencies, is this correct? Has WSDOT discussed the calculation of permit fees with the local governments? Is there flexibility available for these permit fees to be calculated differently based on the unique nature of the bored tunnel project?**	08/10/10	1. Yes 2. WSDOT has had initial conversations with local governments concerning fee determination, however the fee structure has not been decided. 3. Based upon preliminary discussions the answer is "yes". The Proposer must pursue this discussion with local governments.
131	TR	2.8.4.3.2.1		7/29/2010 (Received 7/30/10)	Section 2.8.4.3.2.1 has information the technique and pace that the D-B is supposed to use to remove soil at elevations that have a high likelihood of encountering archaeological resources. The interpretation of this section is that in the North Portal area the depth of the paced removal (4" lifts) is one foot with a 30 day pause to complete archaeological investigations. In the South portal area the depth is two feet, from one foot of the targeted historic tide flat to one foot below the targeted historic tide flat surface. However, there is no indication of a 30 day pause similar to that defined for the North portal area. As this section is written, the 4" paced excavations with potential pauses for archaeological investigation could take an indefinite amount of time. It is our suggestion that the paced excavation be limited to 30 days for both the North and South portal areas, combined with a 30 day investigative period after paced excavation is completed. This would give the D-B team a total capped time of 60 days for all archaeological sensitive work in the North and South portal areas. **In order to better schedule excavations, could WSDOT also limit the investigation time to 30 days or less in the South Portal area, similar to the defined time limit in the North Portal area?**	08/10/10	No, the South Portal Area, unlike the North Portal Area, is subject to Archeological monitoring. The North Portal Area is required to have an archeological investigation for known artifacts. It is not anticipated that excavation in the South Portal Area will find artifacts, but it is a requirement that excavation be monitored as provided in 2.8.4.3.2.1 and 2.8.4.3.2.2 as verification.
132	ITP	3.1.3		7/29/2010 (Received 7/30/10)	**Can graphics (charts, tables, exhibits, etc.) be prepared in readable text smaller than 12 point and in a font other than Times New Roman?**	08/10/10	Yes, as long as the substantive content is not printed within 0.75 inches of any page edge and is presented in a readable format (ITP Section 3.1.3)
133	Add #4	Item 32	23	7/29/2010 (Received 7/30/10)	This Section 7.2 describes the scope of Design-Builder's responsibilities with respect to Utility Adjustments, and how the risks associated with Adjustments will be allocated between WSDOT and Design-Builder. TR Section 2.10 further describes the scope of the Work with respect to Utility Adjustments. Utilities impacted by the Project include both Public Utilities and Private Utilities. The majority of Utilities impacted by the Project are Public Utilities, owned by departments or division of either the City of King County. WSDOT and the Public Utility Owners have entered into Intergovernmental Agreements that govern the Adjustment of their respective Public Utilities. The Intergovernmental Agreements are Contract Documents, and Design-Builder shall comply with said agreements in performing the Work. Utilities will need to be moved to accommodate construction of the Portal excavations. **1. Can we assume that all adjustments for a public owner's facilities are indicated within appendix U5 in the Portal areas?** 2. The second part of the paragraph indicates the reimbursement is between the Pubic Owner and WSDOT. **How does this work if the cost of the adjustment is within the Design Builder's bid?** 3. A prescheduled adjustment is treated different than an adjustment. Article 7.2.3 appears to mean that only coordination costs are to be included in the design builders bid. **Therefore if the utility is listed in appendix U5, the only scope of work to be included in the price is the coordination work, review of the relocation design, and possible incidental work related to removal of the utility after the utility has been re located as an example.**	08/10/10	1. No. Appendix U5 is based on WSDOT's conceptual design. The Design Builder is responsible to determine utility impacts associated with the Design-Builder's design. 2. Section 7.2 requires the proposer to include all Adjustment costs for public utilities in the proposers lump sum. Cost reimbursement between agencies is not the Design Builders responsibility. 3. This is correct.

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134.	Add #4	Item 32	23	7/29/2010 (Received 7/30/10)	Except as provided otherwise in this Section 7.2 or in TR Section 2.10, Design-Builder is responsible for performing all work related to Public Utilities that is necessary to accommodate the Project, and the Lump Sum Amount includes all Adjustment Costs incurred by Design-Builder for such Work. In addition, except as otherwise provided in this Section 7.2 or in TR Section 2.10, any reimbursement owed by or to a Public Utility Owner for Utility Adjustments will be addressed directly between WSDOT and the respective Utility Owner pursuant to the Intergovernmental Agreement. MOU section 2.10 SPU is responsible for relocating SPU Conflicting Facilities. SPU's relocation responsibility is limited to the final relocation of each SPU Conflicting Facility unless otherwise agreed to by the PARTIES during the PARTIES' evaluation of the Conceptual Relocation Plan. The STATE is responsible for preparing Conceptual Relocation Plans that document a feasible and efficient approach to relocating Conflicting Facilities in a manner that accommodates the PROJECT. MOA section 2.10 states SPU is responsible for relocating SPU conflicting utilities yet addenda #4 - states that the DB is responsible for performing all work related to Public Utilities. **Can WSDOT provide an explanation of which Party is responsible, who performs the work? Who pays for work performed?** There is an existing water main at the South Portal that is designated W1014-W1024 in Appendix U5. **Using the above as an example, please describe the division of responsibilities for performing the work.**	08/10/10	Section 7.2 requires the proposer to include all Adjustment costs for public utilities in the proposers lump sum. The Design-Builder is responsible to perform all work associated with the Adjustment unless otherwise indicated in TR Section 2.10 or Appendix U in it's entirety. Reimbursement between agencies is not the Design Builders responsibility. For the example noted, the Design-Builder is responsible to verify the water line conflicts with the Design-Builder's design and perform all work necessary to alleviate the conflict in accordance with owner standards and subject to SPU (utility owner) approval. All costs associated with the Adjustment are the Design-Builder's responsibility and would include costs and time for any temporary services, if required. In the case of water lines, SPU crews will perform certain tasks at SPU's cost, such as connection of the new water line to their system as indicated in the City of Seattle, Standard Specifications for Road, Bridge, and Municipal Construction, Appendix D27. Again, any reimbursement that may be required by the agreements between WSDOT and other agencies is not the Design-Builders concern.
135.	Add #4			7/29/2010 (Received 7/30/10)	Both Appendix K4 and Appendix K5, (SCL and SPU)Section 3.3. mention a Conceptual Relocation Plan. **Who (WSDOT or the DB) creates the Conceptual Relocation Plan? If WSDOT creates this plan, is it available? Appendix U 13 included conceptual utility plans. Is this the only information available?**	08/10/10	The conceptual relocation plan referred to in the Agreements was produced by WSDOT and has already been provided to the City. The conceptual relocation plan was used for scoping of interagency budgets and responsibilities. The conceptual relocation plan is outdated and will not be provided. The conceptual relocation plan should not be confused with the Conceptual Adjustment Plan in Appendix U13.
136.	Add #4			7/29/2010 (Received 7/30/10)	Contract Section 7.2.8 states "Design-Builder shall design the Project so that after a Prescheduled Adjustment, relocation (either temporary or permanent) of the affected Utility shall not be required." And Technical Requirements section 2.10.7.11 states "The Design-Builder...shall design the Project so that after the Prescheduled Adjustment, these Utilities are not in conflict with the Project or the Work." **Are there plans available that show the final configuration of the Prescheduled Adjustment Utilities? We are required to not relocate them once they have been moved, but don't know where they will be in their final configuration.** Also it is unclear when the Prescheduled Adjustments will be started and completed.	08/10/10	Current plans are available for Pre-Scheduled Adjustments that are part of the S. Holgate St. to South King St. Viaduct Replacement project. Other Pre-scheduled adjustments have not been designed. The Design-Builder will have to coordinate with the utility owner and will have the opportunity to influence design of these adjustments. We have noted in Appendix U5 the nature of the planned adjustment. If you have questions about specific Pre-Scheduled" adjustments, we can provide a more specific response.
137.	Add #4		8	7/29/2010 (Received 7/30/10)	Section 7.2.2.1 states "Design-Builder is required to comply with any Utility MOUs included in TR Appendix U". **We can't find any MOUs in TR Appendix U. Please clarify.**	08/10/10	The purpose of the utility MOU's is to informally outline procedures and relationships among WSDOT, the utility owner, and the Design-Builder for the project. These procedures and relationships are already included in TR Section 2.10 of the RFP. If any additional commitments are made in Agreements and/or MOUs, WSDOT will issue an addendum or change to the contract as appropriate

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138.	Add #4		9	7/29/2010 (Received 7/30/10)	Section 7.2.2.3 states Design-Builder acknowledges that the purpose of the Utility MOU's (if any) is to promote cooperation by the Utility Owners with the Project, but that the Utility MOU's are not binding on the Utility Owners. Nevertheless, Design-Builder is required to comply with any Utility MOUs included in TR Appendix U, unless otherwise directed by WSDOT. In the event of any conflict between the terms of any Utility MOU and the terms of the Contract Documents, the Contract Documents shall prevail as between WSDOT and Design-Builder. WSDOT shall have no obligation to enter into a Utility MOU with any Utility Owner. As stated in addenda #4 item 32, page 23 The Intergovernmental Agreements are Contract Documents, and Design-Builder shall comply with said agreements in performing the Work. **Are the MOU's different than an interlocal agreement? Appendix K includes MOA's not MOU's.** **Explain what is intended and how the D/B approaches** **The are no MOU's in Appendix U?**	08/10/10	Yes, as used in the context of this question, agreements are contractually binding documents between the signatories, MOU's are not contractually binding. The purpose of the MOU's is to informally outline procedures and relationships among WSDOT, the utility owner, and the Design-Builder for the project. These procedures and relationships are already included in TR Section 2.10 of the RFP. If any additional commitments are made in Agreements and/or MOUs, WSDOT will issue an addendum or change to the contract as appropriate.
139.	TR	2.10.7.8		7/29/2010 (Received 7/30/10)	Section states "Appendix U5 is a Contract Document and except for the items of Utility Information (which are provided for information only and shall not be relied upon by the Design-Builder), the Design-Builder shall comply with all the requirements and determinations stated thereon." and the definition of Utility Information is "Utility Information means the information regarding Utilities included in TR Appendix U and any other information WSDOT includes in the RFP with regard to identification of Utilities. In the event of any conflict within the various components of the Utility Information, the more accurate information will prevail." **What parts of Appendix U5 are requirements and determinations that the Design-Builder must follow?**	08/10/10	"Explanatory Comments" and "Action" columns of Appendix U5 address requirements for each potential utility conflict identified by WSDOT based on the conceptual plans. In accordance with section 7.2 and TR Section 2.10, the Design-Builder must determine utility conflicts based on the Design-Builder's design, develop a solution and obtain the utility owner's approval. Adjustment for Deformation Mitigation of Group A utilities is mandatory.
140.	Add #4	App U5		7/29/2010 (Received 7/30/10)	W53B: 250 ft of 12inch CI water main: Cause of Impact to Utility: Tunnel Settlement. Design-Builder to Adjust in advance of tunneling. Replace with 12" DI. Settlement tolerant design required. See TR Section 2.10 **Describe intended scope of work- Who determines limits work, who designs, who constructs, who pays?**	08/10/10	Appendix U5 provides the approximate length of replacement required to mitigate deformation related damage. This length determination was based on the Deformation Analysis conducted by WSDOT. The Design-Builder is required to develop a Deformation Analysis. Actual replacement lengths will be determined by the Design-Builder based on the Design-Builder's analysis and actual conditions. The mitigation plan will be approved by WSDOT and the Utility Owner.
141.	App K5	4.8	12	7/29/2010 (Received 7/30/10)	The STATE agrees to perform Deformation Mitigation Work on watermains that are subject to displacement in excess of the criteria established in the tables below. Table 1. Maximum Total Displacement Criteria (Table no inserted- refer to MOU) 4.9 For cast iron watermains, unless otherwise agreed by the PARTIES, the STATE shall be responsible to replace the impacted watermain to the nearest joint or appurtenance where the interpolated amount of Deformation is half the maximum total displacement criteria. Actual field conditions will be considered in determining the total pipe replacement. 4.10 For ductile iron watermains, unless otherwise agreed by the PARTIES, the STATE shall be responsible to repair or realign the impacted watermain to the nearest joint or appurtenance where the interpolated amount of Deformation is half the maximum total displacement criteria. Actual field conditions will be considered in determining the total pipe repair or realignment. Table 2-52.13 – Ground Surface Settlement Limits for Streets, Sidewalks and Utilities1 (Table indicates settlement limits, from 1" to 3 " depending on location.) **Explain the scope of deformation work intended in order to meet the requirements of the MOA- Who is responsible for this work if not identified in Appendix Table U5?**	08/27/10	The MOA's were made reference documents by addendum. Any requirements of the Design-Builder included in the agreements will be addressed in the Technical Requirements.

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142.	Add #4	Item 9	20	7/29/2010 (Received 7/30/10)	Section 5.9.2 Responsibility for Deformation of Structures and Utilities Within Tolerances, add the following paragraph after line 25: This Section 5.9.2 does not apply to Group B Category #1 Utilities. 1. This appears to clarify that WSDOT will not pay a Category #1 utility for repair work if the settlement above the utility is less than the maximum identified by WSDOT in Table 2-52.13. WSDOT did not add the same clarification to Section 5.9.3 Deformation outside of tolerances. **Can we assume that there is no responsibility to pay the Category #1 utilities the cost to repair their facilities if the settlement is outside of tolerance?**	08/10/10	No. Damage to utilities regardless of the category/classification is the Design-Builder's responsibility if settlement exceed the thresholds.
143.	Add #4	Appendix U5		7/29/2010 (Received 7/30/10)	Appendix U5 There appear to be differences between the listed quantities in the table and the quantities required to complete a relocation. **Please describe work limits, how quantities were determined**	08/10/10	Utility Length listed in Appendix U5 is the approximate length of the impacted utility. The Conceptual Utility Adjustment Plan (Appendix U13) represents a possible route for relocation. In some cases, the utility system will have to be modified/reconfigured to maintain system integrity.
144.	TR			08/04/10	Is use of "Burland" approach an acceptable approach for determining degrees of settlement impact?	08/10/10	Yes, it is acceptable.
145.	TR			08/04/10	Is use of horizontal strain, instead of peak horizontal strain, acceptable for analysis?	08/10/10	Using average strains is technically acceptable in the context of a comprehensive analysis that includes the following: - Meaningful segments of the building that consider both the relative position within the settlement trough, and the structural character of the building. - Building stiffness relative to foundation stiffness are considered. - More detailed and multiple-scenario analyses are conducted.
146.	TR			08/04/10	Clarify how predicted Horizontal Movements are applied for building founded on piles.	08/10/10	It would be acceptable in refined analysis to apply settlement at the pile tip, and horizontal movement at the pile cap, if determined to be the most appropriate for the specific building.
147.	TR			08/04/10	Does Group B building Allowable Settlement of 1 inch mean mitigation is mandatory if more than 1 inch is predicted?	08/10/10	Advance mitigation is not intended to be required on the basis of predicted settlement being over 1 inch. The intent was for Design-Builder to implement mitigation where damage is predicted. A future addendum will clarify.
148.	TR			08/04/10	Does allowable Settlement or Allowable Distortion control?	08/10/10	Both apply.
149.	TR			08/04/10	Clarify RFP terminology of "Allowable Distortion", which is really building tilt.	08/27/10	"Allowable Distortion" has the same meaning as "Differential Settlement."
151.	TR			08/12/10	Are the light fixtures specified for Tunnel Lighting a proprietary item?	8/27/2010	No, WSDOT believes the following manufacturers have produced linear tunnel luminaires meeting the RFP specifications or a materially equal specification on other projects: Apogee Translite Litecontrol Philips Lumec NuArt Lighting Schreder Lighting

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152	TR	2.34.4.2	2.34-6	08/17/10	2.34.4.2 HVAC DESIGN REQUIREMENTS includes the table below. The egress walkway indoor design conditions require 68 degrees Fahrenheit which will require heat. To heat a space to this level will require insulation as per the Washington State Energy Code Seattle Amendments chapter 14. Please clarify whether or not the bored tunnel wall that is in contact with the earth and/ or the wall separating the walkway and maintenance areas from the roadway will require R-19 insulation as per the State Code. There is no insulation present on this wall please advise. Table 2-34.1 – HVAC Indoor Design Conditions for Bored Tunnel Space / Winter (F DB) / Summer (F DB) / (Percent RH) General Offices: 68 / 78 / 50 Egress Walkway / Work Areas: 68 / (1) / -- Storage Areas: 55 / (2) / -- SCADA Equipment Room: 55 / 104 / -- Pump Equipment Room: 55 / 104 / -- Notes to Table: (1) Outside air ventilation, ashiest + 10 degrees (2) Exhaust only	8/27/2010	No insulation is required for either the bored tunnel wall or the wall separating the roadways from the pedestrian levels in the tunnel. The design intent was that these tunnel spaces are unheated relying on ambient subsurface temperature. These are unoccupied spaces, except during emergency evacuation or tunnel maintenance. A future addendum will revise the range of temperatures.
153	TR	2.18.4.9.1	2.18-22	08/17/10	On line 14, "The Design-Builder shall design a location of Toll Zone Equipment Cabinets (type 334 and foundation by others)…" Confirm that both the Type 334 cabinet and foundation are to be provided by others.	8/27/2010	The foundation (concrete pad) shall be provided by the Design-Builder, along with conduit. The double wide type 334 cabinets, equipment and wiring will be provided by others. See Systems Interface document in Appendix M4.
154	TR	2.18.4.9.1	2.18-22	08/17/10	Line 20 - 31: Confirm that toll zone readers, toll zone equipment and cables will be furnished and installed by others. If Design-Builder is to supply equipment, please clarify equipment to be supplied.	8/27/2010	Readers, equipment and cables will be furnished and installed by others. See Systems Interface document in Appendix M4.
155	TR	2.18.4.9.1	2.18-22	08/17/10	Line 38 - 39: Please clarify "The Design-Builder shall pole-mount each toll Zone Reader Cabinet, including foundation, so that the top of the cabinet is five feet from the top of grade."	8/27/2010	The pole is intended to be the tolling gantry, provided the height measurement can be met. If not, they need to be mounted to a separate support pole or poles that will meet the five foot height requirement. See Appendix M4.
156	TR	2.13.4.3.11.2	2.13-20	08/17/10	Line 7 calls for maintenance walkways for TCS and LCS. Does WSDOT intend for walkways to be installed for these signs? Walkways don't appear to be practical based on 24" clearance allowed.	8/27/2010	WSDOT would not require walkways for sign structures within the bored tunnel or cut & cover portions of the tunnel due to restricted clearance. The TCS and LCS may be located within the U-Section Structure where a maintenance platform would be required. TR 2.13 includes provisions for the Interior structures within the bored tunnel and also Other Structures such as sign supports.
157	TR	2.19.4.1.1	2.19-3	08/17/10	On line 14, "All new primary guide signs in the tunnel shall be mounted and shall be placed between fire zones, TCS and LCS." Please clarify if "fire zones" means fire zone signs.	9/3/2010	See addendum. The guide signs shall be placed between the fire sprinkler zone piping and the TCS, LCS signs.
158	ITP	Form B	B-3	08/17/10	Please confirm that the second note on Page B-3 of Form B should refer to lines 55 thru 61 and not refer to lines 51 through 57.	8/27/2010	See future addendum.

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159	RFP TR Appendix M1, O4			07/14/10	The following inconsistencies were observed upon reviewing the Final RFP Roadway Conceptual Plans: 1) Deviation 1 & 2 approved the right shoulder width of 6'-10' on southbound mainline from Sta. 183+50 to 300+50. However, the right shoulder width is only 4' between Sta. 183+30 to 185+44.S-NBON ramp vertical stopping sight distance will not meet design requirement unless 2' object height is used in calculation. 2) S-NBON ramp vertical stopping sight distance will not meet design requirement unless 2' object height is used in calculation. A Design Decision for using 2' object height was approved for the mainlines and S-SBOFF ramp but it excluded S-NBON ramp. 3) S-NBON ramp right shoulder width is 2'-4'. The minimum requirement is 8'. There is no deviation developed for this discrepancy but a justification was provided in the Design Parameters document. Will this documentation suffice or a deviation is required? 4) S-SBOFF sight distances and superelevation runoff were computed based on 40-45 mph design speed. However, the profile grade of 6.21% exceeded the maximum 6% allowed. 5) • The Design Parameters indicated that superelevation runoff lengths for the south end ramps (S-NBON and S-SBOFF) were obtained from WSDOT DM Exhibit 1250-7a. However, the runoff lengths in this exhibit are adjusted for 15-ft wide ramps, per DM 1250.08. Since these ramps are only 12-ft wide, we believe Exhibit 1250-6a should be used instead to obtain the proper runoff lengths. • The Design Parameters indicated that 40 mph design speed was used to obtain superelevation rates for the first two horizontal curves on the S-NBON ramp. However, the runoff length was obtained by using only 25-30 mph design speed. • The north end mainlines (NB99 and SB99) begin/end superelevation stations and runoff lengths is not consistent WSDOT DM requirements.	9/3/2010	1. and 2. A 2' object can be used to for the vertical stopping sight distance calculations on the right shoulder between S-NBON ramp Sta. 183+30 to 185+44. WSDOT will check calculations, and, if needed, process a design deviation and/or a design decision. The Design-Builder should follow the basic configuration plans for the design in this area. 3. and 4. WSDOT will check current design documentation , and, if needed, process a design deviation and/or a design decision. The Design-Builder should follow the basic configuration plans for the design in this area. 5. DM Exhibit 1250-71 or DM 1250.08 can be used to calculate superelevation runoff lengths as long as the transition length is computed from the rate of transition, not the length given the tables. The pivot point and alignment can also be adjusted to obtain adequate runoff lengths. If the Design-Builder can make adjustments to the make adjustments to the runoff lengths shown in the basic configuration plans as long as the design manual requirements are met. 6. WSDOT will check current design documentation , and, if needed, process a design deviation and/or a design decision. The Design-Builder should follow the basic configuration plans for the design in this area.
160	2.39.4.8; APP Z7 11.4.1			07/14/10	We request clarification of conflicting requirements regarding the list of selected loads required to be powered by the Emergency Generators. TR 2.39.4.8 lists specific equipment required to be powered by the emergency generators. The Tunnel ventilation fans including the large fans in the north and south buildings and the jet fans are not listed and therefore not assumed to be part of the required generator connected equipment. In addition the conceptual one line drawings (Appendix M2 conceptual plans sheets 176 and 177 of 251) do not include the TVS fans as part of the generator connected load. However NFPA 502 as amended by SFD per Appendix Z7 specifically lists ventilation equipment (NFPA 502 - 11.4.1 item 6) and smoke control systems (NFPA 502 - 11.4.1 item 10) as equipment to be connected to the emergency power supply system. We are requesting that WSDOT clarify whether NFPA 502 as amended specifically includes the Tunnel Ventilation System including its associated fans and therefore are required to be connected to the emergency generator systems to power the fans in the event of a power outage.	8/27/2010	The design intent is that the primary source of emergency power is the alternate utility power supply. The generator is provided in the rare circumstance that both utility feeders fail and since this is not the primary emergency power the fans do not need to be connected to the generator. Therefore we believe that we are within the requirements of NFPA 502 as amended by SFD.
161					1. What are the restrictions or requirements from King County for direct discharge of stormwater into their facilities? 2. How much can be discharged and where are the discharge points located?	8/27/2010	See future addendum.

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162	Form B				In the concept plans for the Western Building (T252), the Polson Building (T251), the Commuter Garage Building (A161), and the Commuter Building (A159) the contractor is required to perform intrusive investigation to establish the condition of the existing timber piles. How is this work to be bid?	8/27/2010	Wood piles supporting the Western Building (T252), Polson Building (T251), Commuter Garage (A161), and Commuter Building (A159) have a history of dry rot in the piles at the interface between the top of the piles and the concrete foundation. Repairs to the wood piles have been conducted in each of the buildings with the exception of the Western Building. These repairs have consisted of the installation of micropiles along with new concrete grade beams/pile caps. For this reason, it is recommended the Design-Builder perform intrusive investigation in at least 8 locations in each of the buildings to ascertain the condition of the existing wood piles prior to proceeding with any additional mitigation work for these buildings. Typically, the intrusive investigation would include excavation adjacent to the existing pile caps to expose the tops of the timber piles in each building. The locations for excavation should be mutually agreed upon by WSDOT and the Design-Builder. Depending upon the variability of the condition of the piles exposed, the excavation of additional pits may be required. By establishing the condition of the existing piles, the effectiveness of utilizing compensation grouting to minimize movement of the building during tunneling can be properly evaluated.
163	TR	2.45.4.1.5	2.45-9, 2.45-13, 2.45-15	08/30/10	Access flooring is required for the SCADA room and the control room in the North Building according to the program matrix. The matrix does not require access flooring for the south Building SCADA room. Can access flooring be eliminated in the North Building to match the South Building? The conduit in this facility can be installed in cable trays.	09/03/10	See Tables 2.45.4.3.3.1.1.2 and Table 2.45.4.3.3.1.2.2 for the south and north Operations Buildings respectively. Access flooring is required in both locations.
164	TR & Q&A #106	2.33.4.7.1.1	2.33-8	08/30/10	Q&A #106 asked for the following clarifications: Confirm the definition of Surface Grade. Identify the Surface Grade location at the south portal for the northbound and southbound roadway exit distance bench mark. Identify the Surface Grade location at the north portal for the northbound and southbound roadway exit distance bench mark. WSDOT previous response: Intent is to allow persons evacuating the tunnel on foot to be able to exit the roadway. Surface grade is defined as the point at which persons can safely get out of the roadway - ie there are no retaining walls or traffic barrier in the way on the outside of the roadway. This exact location will depend on your final roadway design.	09/03/10	See revised response to Q&A #106.
165	Q&A #91 & #92	TR 2.48.3.2.1		08/30/10	The purpose for a 16ft high elevator (per Q&A #91) is not clear. We assume from the response to the question that related to elevator doors that the elevator height will also be increased. Other than the tunnel roadway fans and corridor ventilation fans, most equipment is less than 7ft high. Within the building interior there is no pathway through it to move items that are 16ft high. The tunnel roadway fans and corridor ventilation fans can be replaced from the exterior from openings within the fan enclosure. The 16ft doors and cab height will require a larger pit and overrun increasing the heights of both buildings. We believe that a clear car inside for dual purpose elevators; 161 square feet minimum by 12 feet high and a hoistway entrance and car opening size of 10'-0" wide by 10'-0" high will adequately serve the project needs, reduce the overall height of both the north and south operations buildings and provide best value. Confirm a clear car inside for dual purpose elevators; 161 square feet minimum by 12 feet high and a hoistway entrance and car opening size of 10'-0" wide by 10'-0" high. Also, please confirm that this would apply to both the north and south operations buildings.	09/03/10	See future addendum.

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166	TR	2.45.4.1.6.4	2.45-16	08/30/10	"Minimum Height Required" is included under the Mandatory Requirements. "Minimum Height Required" is not defined, but is usually assumed to be clear height to underside of ceiling or structure. For room S-TM22 Lay Down Shop Area, the Minimum Height Required is 24 ft on page 2.45-16. If the structure for the second floor above this space is 3ft deep the overall floor to floor height will be 27ft. Currently Dwgs AD012 & AD013 indicate a 23ft flr to flr height between Lvl 1 and Lvl 2. This space will determine the overall building height. This may also create a flr height differential between Lvl 2 required for the S-TS30 Fan Silencers and the remainder of the floor. The adjoining room S-TM05 Tunnel Vehicles has a recommended height of 15 ft. The highest opening from S-TM-05 to S-TM22 would be 15ft. Confirm the definition "Minimum Height Required" included under the Mandatory Requirements. Confirm the "Minimum Height Required" for room S-TM22 Lay Down Shop Area.	09/03/10	See Addendum which revised the height requirements for Room S-TM22. Drawings are for reference only. The RFP Technical Requirements provide the mandatory height requirements.
167	TR	2.45.4.1.6.4	2.45-16	08/30/10	On page 2.45-16 for room S-TM22 Lay Down Shop Area, the Minimum Required Length Dimension is 60 ft and, the Minimum Required Width Dimension is 40 ft. Currently Dwg FP105 shows this space as a trapezoidal space. Dwg AD021 shows the space according to the mandatory dimensions on page 2.45-16. Assuming that the Tunnel Vehicles S-TM06 size and location is generally fixed based on the elevated structure above, the 60ft x 40 ft Lay Down Shop Area will not fit within the balance of the building footprint as shown on Dwg FP105. Confirm the Mandatory Requirements for the S-TM22 Lay Down Shop Area, the Minimum Required Length Dimension and, the Minimum Required Width Dimension. Can a trapezoidal footprint with a Minimum Required Width Dimension of 20 ft and a minimum area of 2,400 sf be provided?	09/03/10	A trapezoidal shape can be used. The minimum width must be 40 feet unless approved by WSDOT.
168	Appendix M2 and Q&A #26		FP303	08/30/10	On Dwg FP303 Rm. No. N-TM02 Receiving & Loading has a depth of 50 ft and a width of 70 ft. Under TR 2.45.4.2.5 Receiving and Overhead Doors the following is noted under item 1 "Receiving areas for the servicing and replacement of equipment by trucks up to 60 feet in length shall be accommodated at the Tunnel Operations Building." It is unusual to have a rooms programming requirements defined under a door heading. The size of the truck to be accommodated within the building with the exterior doors closed is not clear. We have tested the turning geometrics of various configurations of 60 ft long trucks backing into a space from a 15 ft wide alley and we can't make it work especially with one vehicle parked inside. Using Appendix X7 Dwg 33 it appears that the E/W length of the property above grade is 108 ft. If a 70 ft deep space is required for Rm. No. N-TM02 Receiving & Loading the remainder of the property length available is 34 ft. This does not include any additional setback to improve the turning geometrics. 1. What is the size of the truck to be parked within Rm. No. N-TM02 Receiving & Loading? 2. Of the recommended length and width listed under TR 2.45.4.1.5.1.1 for Rm. No. N-TM02 Receiving & Loading which recommended dimension is to have the receiving and overhead doors located within it? 3. If the design vehicle is 60 ft long, can access to the garage space be accomplished by backing into the garage from Harrison St?	09/09/10	1. WB40. 2. The 70 ft. dimension is the dimension for the receiving and overhead doors to be located within. 3. It is not required that the 60' delivery vehicle be able to back into the Receiving & Loading. Deliveries from vehicles larger than WB40 may be accomplished by backing in at a skew angle, by remaining partially in the Receiving & Loading with the doors open, or by remaining in the alley. It should be noted that a loading dock is neither required or desirable. Deliveries will be loaded/unloaded by forklift from the ground.

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169				08/31/10	In the April 2010 report "Assessment of Settlement Impacts to Utilities" waterlines W37, W53C and W60 were not assessed as susceptible to damage but they were included in the Group A Utilities. Why?	09/03/10	These 3 lines are 8", 12" and 12" ductile iron (DI) waterlines, respectively. They all cross over the proposed tunnel or nearly parallel in areas where surface settlement is anticipated to exceed 2.5 inches. Subsequent to the publication of the Utility Assessment report, Seattle Public Utilities (SPU) established new displacement criteria for ductile iron waterlines that was more stringent than that used by WSDOT in their analysis. SPU's own analysis conducted by CDM and reported in an April 2010 draft report identifies these lines as at risk and recommends replacing the lines after the TBM has passed and monitoring confirms movements have stopped, but also having a plan in place to repair or re-route if damage is excessive during construction, including having a repair team on 24 hour standby. Based on the relatively high expectation of failure and the cost of crew standby time for an extended period, it was determined that the lines should be replaced in advance.
170	Appendix U5, U13, & M11	Appendix U5, Appendix U13, Appendix M11	U5 - p. 1, U13- p. 1, M11 - p. SC002		According to Appendix U5, the 26 kV overhead lines located west of the BNSF Tail Track (E1020) will be adjusted underground by the H2K contractor. However, Appendix U13 showed that E1020 is being relocated to the east of Tail Track as an overhead line. In addition, the relocated 26kV lines will fall within the Design Builder staging area (per Appendix M11 Sheet SC002) and will be impacted by the cut-and-cover excavation. Could WSDOT clarify the intended location of these 26kV lines?	09/03/10	This 26kV overhead line will be relocated in the H2K project, however the circuit supplies power to street lighting that will be required for traffic operations until the Design Builder occupies the staging area. Once the Design Builder diverts traffic from this area, the street lighting can be abandoned and the Design Builder is to remove the circuit and pole line. Changes to the H2K construction sequence may eliminate this conflict. The Design Builder must coordinate with the WSDOT H2K Project Engineer and SCL for final disposition.
171	Appendix U3		1 and 2		The 18" storm drain lines (Utility item No. S2007-S2010) installed by H2K2 Contractor will be impacted by the cut-and-cover excavation but they were not addressed in the Utility Impact List (Appendix U5). Please clarify.	09/03/10	The 18" storm drain (S2007-S2010) is relocated in H2K2 to provide drainage collection and conveyance for a portion of Alaskan Way South. Based on the Conceptual Plans, this portion of Alaskan Way South is an area that will be incorporated into the cut section of the project and this line would be removed. The Design Builder should make an independent determination of the continued need for this drainage conveyance line based on the Design Builder's design.
172	Appendix U13		Sht 1 of 8		Referring to the attached south end existing utilities drawing, there are unidentified storm drain, water, and overhead power lines that will be impacted by the south end tunnel excavation and yet they were not included in either the Existing Utility List (Appendix U3) or the Utility Impact List (Appendix U5). Please provide direction.	09/03/10	Appendix U5 has identified known Utilities that conflict with WSDOT's conceptual plan for the Project. There are other utilities reflected on the existing utility plan that will be abandoned during H2K2. Please refer to H2K2 plans for disposition of utilities in question. The Design Builder is responsible to verify existing utilities and determine utilities that conflict with the Design-Builder's design. If you can be more specific in your question, we can provide a more specific response.
173	TR 2.45	2.45.2.2.2.1		08/30/10	What are the constraints relative to compliance with the Seattle Noise Ordinance for operations of the ventilation system?	09/03/10	WSDOT has performed analyses for both the north and the south Operations Buildings. The analysis was limited to the conditions of one fan running and all five fans running. The north Operations Building was determined to be the worst-case scenario, which resulted in the requirement for insulated double glazing glass on the ventilation enclosure. Absorption in the form of insulated roof and floors was not made a requirement. In our analysis the Seattle Noise Ordinance limits would not be exceeded in any location with one fan running. Without absorption and five fans running our calculations determined the Seattle Noise Ordinance limits would be exceeded by 2 dBA at one location ("west to power station") and no residences are in this area. All other locations analyzed met the Seattle Noise Ordinance requirements whether one fan or five fans were running. With absorption WSDOT found that the Seattle Noise Ordinance was met at all locations, whether operating one or five fans. Further, it was assumed that all five fans would only be running during an "emergency" which is exempt per SMC 25.08.530.
174	2.58	2.58.7.4.1.3	2.58-14	08/30/10	Is the King County Water Taxi project going to use a portion of Pier 48 and are there any existing utility plans for the area?	09/03/10	See Future Addendum. Yes, WSDOT has utility plans for Pier 48 and draft King County Water Taxi plans. The KC Water Taxi will be utilizing the north side of the pier for their operations.
175	Appendix M8			09/03/10	These drawings do not show locations of piezometers…either open standpipe or vibrating wire. Is this presented elsewhere?	09/09/10	The piezometers that where placed during the geotechnical exploration are shown in Figure 2 of the GEDR, which is Appendix G2. Additional piezometers are to be placed at the Design-Builder's discretion. TR 2.54.6.1 "The Design-Builder shall add additional instruments deemed necessary to provide the level of coverage needed to manage the risk of damage to structures due to ground deformations."
176	TR	2.54		09/03/10	Section 2.54.6.3 references the requirements for building monitoring points. Can I assume that Table 2.54.1 identifies ALL buildings that need to be monitored?	09/09/10	No. Section 2.54.6.3 requires "Every building within the Zone of Influence or within 10 feet of the Zone of Influence shall have a minimum of four manual structure monitoring points, one on each corner." The Zone of Influence is an outcome of the Design-Builder's Deformation Analysis and therefore monitoring may be required in buildings not identified in Table 2.54.1.

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177	TR & M8	2.54		09/03/10	Section 2.54.7.9 references portable and in-place inclinometers, but the drawings do not distinguish between locations for these devices. Is this decision at the option of the D/B team?	09/09/10	Yes. Section 2.54.6.1.2 states, "There shall be a minimum of eight in-place inclinometers, including the sets at stations 207+85, 213+05, 240+90 and 256+55 as located on the Construction Monitoring Plan." All other inclinometers are at the discretion of the Design-Builder.
178	TR	2.32.4.5.1	2.32-10	09/09/10	lines 6-8 .....Type IP cement is ground and blended with Fly Ash or Ground Granulated Blast Furnace Slag at the cement manufacturer's plant. This is a convenient way for a concrete supplier to save silo space because it requires only one storage silo rather than tow. At our plant, we prefer to blend cement from one silo and fly ash from another in the mixer. This gives us the freedom to blend different proportions of cement and fly ash as required. There are no concrete quality benefits of using Type IP (pre-blended) in lieu of blending the materials in the mixer. Will it be acceptable to blend Type I/II Portland Cement with fly ash in the concrete mixer?	09/17/10	Yes, it is acceptable to blend Type I/II Portland Cement with flyash in the concrete mixer. (No Addendum required).
179	TR	2.32.4.5.1	2.32-10	09/09/10	lines 16-17 .....Table 1A is not included in AASHTO M 307. Please verify that the intent is to reference Table 1 rather than Table 1A in AASHTO M 307.	09/17/10	Yes, Table 1 in AASHTO M 307 is correct. See Addendum #11.
180	TR	2.32.4.5.1	2.32-10	09/09/10	line 18…..Loss of ignition of 1.5% maximum is not attainable. Standard Loss on Ignition in M 307 is 6.0 percent max. Our standard silica fume is normally two to four percent. Is 6% maximum as specified in M 307 acceptable?	09/17/10	Loss of ignition is 4 percent maximum. See Addendum #11.
181	TR	2.32.4.5.1	2.32-10	09/09/10	lines 33-34…….AASHTO 277 is the reference for the Chloride Ion Penetration test. We are not aware of an AASHTO or ASTM test for water permeability. Please clarify.	09/17/10	Water Permeability Test is not required. See Addendum #11.
182	TR	2.32.4.5.1	2.32-10	09/09/10	lines 35-37…… Chloride Ion Penetrability of 700-coulombs charge or less is considered "very low" and is typical of latex modified concrete, normally used for bridge deck overlays. Our normal structural concrete mixtures meet a maximum charge of 1500 which is in the range of "low" chloride permeability referenced in AASHTO 277 and ASTM C-1202. The 700 coulomb charge is not reliably attainable with normal structural concrete materials. Please revise the Chloride Ion Penetrability requirement to be 1500 coulombs maximum at 56 days.	09/17/10	700 coulomb charge is achievable with the total cementitious material content, microsilica and flyash components. This is a high performance concrete mix. WSDOT will not revise the requirement.

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183	TR	2.37.4.4	2.37-7	09/09/10	2.37.4.4 TUNNEL DRAINAGE COMPONENTS AND PIPING DESIGN **The main collection header is sized for maximum design flow of 4000 gallons from the tunnel fire suppression system.** The fire deluge system flow is 2500 gpm with four fire hose flow of 1000 gpm is 3500 gpm. See 2.38.4.2.3.1 lines 8 through 11 page 2.38-4. We will assume that the pumps will be oversized to accommodate 4000 gpm. The tunnel sections indicate a 6 inch forced main from the storm pump system which is only capable of flowing approximately 1000 gpm. The forced main to handle 4000 gpm will need to be a 12" pipe to allow for a single pumping system. This would eliminate the need for series pumping as indicated on DR001. Are these assumptions correct?	09/24/10	The tunnel sections are for reference only. Likewise, those portions of the Technical Requirements that merely describe the Conceptual Design should also be considered "for reference". The Design-Builder is responsible for determining the final configuration in accordance with the Contract Documents and Code requirements. The DB can select the pump, pump locations, and pipe sizes for drainage as needed to meet the performance requirements in TR 2.37, as amended. There was no intent in the criteria, or shown in the Conceptual Design, to remove the fire event water at the same rate that it is delivered. The conceptual drainage system does not remove water at the same rate at which it is applied during a fire event. The Conceptual Design relies upon utilizing the utilidor for collecting water and pumps the collected water out at a reduced rate based on the amount of water collected and the permitted time to discharge the water. The design criteria calls for removal of water collected during the specified duration of full fire flow event within the specified minimum time. The criteria assume that part of the Utilidor will be used to collect water during the fire event and require this temporary storage be emptied within the time specified. The DB can elect to not use the Utilidor for storage, in which case, the pumps and piping would have to be sized remove fire event water at the same rate delivered to comply with the requirement in NFPA 502 to prevent flooding of the roadway. This would not necessarily eliminate the need for series pumping. The DB would need to demonstrate that series pumping is not necessary through drainage calculations. Note that the storage of water within the utilidor obligates the adherence to additional safety and equipment requirements in accordance with NFPA 502.
184	TR	2.39.4.10.1 & 2.39.4.10.4		09/09/10	System Grounding requires connection to earth (grounding electrode) consisting of stainless steel ground rods connected together by buried, bare, stainless steel conductors or driven rods connected in a grid system. Grounding equipment states "Buried grounding conductors used to form the ground grid or to connect the individual ground rods shall be stranded Type 316 stainless steel bare cable." We are not aware of a stainless steel stranded cable or wire rope that is UL listed as an electrical conductor. Is 316 stainless steel wire rope sized the same as bare copper cable acceptable for buried ground conductor even though it is not UL listed?	09/24/10	Yes. 316 stainless steel rope or bar, sized according to normal design practices, is acceptable for buried ground conductors even though it is not UL listed. This requirement is driven by the need to provide a reliable, low impedance system ground in a corrosive soil that will be inaccessible after construction. Note that UL 467 requires grounding and bonding devices to be either at least 80% copper or stainless steel.
185	TR	2.52.7.4.6	5.52-18	09/09/10	Ground Surface settlement limits are indicated in Table 2-52.12. Gravity system action requirements are indicated in Table 2-52.13. By way of example please clarify how the settlement limits in Table 2-52.12 work in conjunction with action requirements in Table 2.52.13. Will the State issue a change order under 5.9.2 to cover the cost of performing the list of actions in Table 2-52-13 for surface settlements greater than 1 inch but less than the settlement tolerances listed in Table 2.52.12? If there is a greater than 1 inch sag in the sewer and the surface settlements are less than indicated in Table 2.52.12 will the State issue a change order under 5.9.2?	09/17/10	1. Ground surface settlement limits for other structures are found in Table 2-52.13. 2. Gravity System action requirements are found in Table 2-52.14 (as modified by addenda). The values in Table 2.52.13 are the allowable deformation tolerances and are specifically referred to in Contract Section 5.9 regarding cost responsibility above and below these thresholds. Information in Table 2-52.14 provides requirements on when gravity lines require adjustment (i.e. gravity line repair when deformation is 1 to 4 inches AND pipe sags are greater than 1 inch. Pipe replacement when deformation is greater than 4 inches). Example 1: Location is in Alaskan Way between King Street and Yesler Way. Surface settlement is 2.5 inches. Using Table 2.52.14, 1st column (settlement is 1 to 4 inches). Conduct video survey, determine if sag is greater than 1" then repair is required. Cost of repair would be paid by WSDOT. Settlement is within Ground Surface Settlement Limit Table 2.52.13 and Section 5.9.2 applies. Example 2: Location is in Western Ave between Yesler Way and Madison St. Surface settlement is 2.5 inches. Using Table 2.52.14, 1st column (settlement is 1 to 4 inches). Conduct video survey, determine if sag is greater than 1" then repair is required. Cost of repair would be paid by Design-Builder. Settlement exceeds Ground Surface Settlement Limit Table 2.52.13 and Section 5.9.3 applies.

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186	TR	2.8.4.1.1 Table 2-8.1	2.8-18	09/09/10	Is the DB responsible for obtaining and paying for the street use permit(s) for the utility adjustment work? There are many separate work areas throughout the tunnel alignment where adjustment work is required. If individual permits are required, and the DB is required to obtain and pay costs, how are cost to be estimated? SDOT typically provides street use inspectors to oversee work taking place. Who is responsible for payment of street use inspections?	09/17/10	No. WSDOT is responsible for obtaining Street Use Permits and related SDOT costs, as described in the fifth bullet item in 2.8.4.1.1. D-B is responsible to provide design approach, traffic control plan, etc that support the SUP submittal to SDOT. The DB is not responsible for obtaining or paying for Street Use Permits for the utility adjustment work. Utility adjustments would be performed and paid for via the Street Use Permit applied for by WSDOT in October 2009 and referenced in RFP Section 2.8. Additional Street Use Permits will not be required for utility adjustments or other project activities in the right of way. SDOT will issue a Street Use Permit for specific design packages after review of final "Release For Construction" design documents, including those for any utility adjustment work. City inspectors' fees are specifically paid via General Construction Agreement between WSDOT and the City.
187			FP305	09/10/10	Drawing FP305 shows South Ops Bldg Penthouse Level with elevator access to Radio Equip (Rm No N-TS-45). Drawing FP107 shows South Ops Bldg Level 3 without elevator access to Radio Equip (Rm No S-TS-46). Is elevator access required to Rm. N-TS45?	09/17/10	Yes elevator access is required for all building levels where access is required. This includes the Radio Equipment Room.
188			FP303	09/10/10	Addendum 4 item 317, 318 & 319 (Rm. No.s N-TM-027, N-TM28 &N-TM30) changed the Sheet Layout Req to See Dwg AD073. Dwg AD073 Rm No.s correspond to addendum item 4 rm. no.s. Dwg FP 303 has different rm. no.s for the same rooms. Please conform Rm No.s on Dwg FP303.	09/17/10	Drawings are conceptual. See RFP TRs and Addendums for requirements.
189	TR	2.45.4.1.6.4	2.45-16	09/10/10	Reference Q&A #166: Please provide a definition for "Minimum Height Required". I.E. is it floor to floor height, height to underside of structure, height to bottom of suspended ceiling, etc.?	09/17/10	Minimum height is Floor to Bottom of Ceiling or underside of structure where there is no ceiling
190	TR	2.45.4.1.6.3	2.45-15 & 16	09/10/10	In addendum 9 item 45 Trade & Central Shop Rm. No. N-TM24 shows room size of 35' x 50'. Dwg AD071 shows room size of 40' x 60'. Will a revised dwg AD071 be issued?	09/17/10	No, the drawings are conceptual. The TR's provide the mandatory requirements.
191	TR	2.45.4.1.6.3	2.45-15 & 16	09/10/10	In addendum 9 item 45 Entry Vestibule Rm. No. N-TM10 was added to North Tunnel Operations Building –Mandatory Requirements with a room size of 15' x 20'. This is large for a building of this size. It made more sense as a reference rather than mandatory requirement. A 15' x 20' space is excessive for a building of this size and function. For Entry Vestibule Rm. No. N-TM10 we request that a smaller size of 15' x 10' be considered. Please reconsider required room size.	09/17/10	The mandatory size will be reduced to 15 ft. x 10 ft. See future addendum.
192	TR	2.45.4.1.6.3	2.45-15 & 16	09/10/10	In addendum 9 item 45 Unisex, ADA compliant restroom and custodial closet Rm. No.s S-BC78 & S-BC79 were added to South Tunnel Operations Building –Mandatory Requirements. The Program Table column "Mandatory Requirements" indicates that both the restroom and custodial functions are in one room. Dwg FP105 shows Unisex T, Rm. No. S-BC78 and Custodial S-BC79 which we interpret as a separate toilet room and a separate custodial room and not two separate combined toilet and custodial rooms. Please confirm that at South Operations Building Level 1 that Unisex T, Rm. No. S-BC78 and Custodial S-BC79 are a separate toilet room and a separate custodial room.	09/17/10	The Unisex restrooms can be separate from the Custodial Room or combined.
193	ITP	3.1.3	21	09/10/10	The ITP requests a 0.75 inch margin on submittals. We produced our drawings based on WSDOT's CAD requirements and the WSDOT Microstation border file provided which, when produced on an 11x17 sheet of paper, do not allow for a 0.75 inch margin without altering the layout. Can drawings be submitted on 11x17 inch paper without a 0.75 inch border?	09/17/10	Yes, provided no substantive content is within 0.75 inches of any page edge.

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194	Contract	10.1.1			Section 10.1.1 (c) and (d) of the contract state "…the Lump Sum Amount and unit prices include:" (c) the cost of obtaining, complying with and maintaining all Governmental Approvals (except for approvals which are the responsibility of WSDOT, as specifically provided elsewhere in the Contract Documents); (d) payment of any taxes, duties, and permit and other fees and/or royalties imposed with respect to the Work and any equipment, materials, labor, or services included therein. Reading Chapter 1, §10.1.1 (c) and (d); and Chapter 2, §2.8.4.1.1 together seems to imply that WSDOT pays for all permit acquisition costs including any fees charged by third parties (City of Seattle, King County, etc.) for the permits they are responsible for. These sections also indicate that the D-B is responsible for paying for all permit acquisition costs including permit fees charged by third parties for the permits they are responsible for acquiring. Is this the correct interpretation of these subsections of the contract and technical requirements?	09/17/10	Yes.
195	Contract	10.1.1			In reference to Section 10.1.1 (c) and (d): The Street Use permit from the City of Seattle in particular will cover a wide diversity of work defined by a Design Builder's specific approach, means and methods, and staging of the various work elements. However, the State is responsible for acquiring this permit (and its associated fees) as defined by §2.8.4.1.1 of Chapter 2.Is this the correct interpretation?	09/17/10	Yes. The DB has to provide the required documentation.
196	Contract	10.1.1			In reference to Section 10.1.1 (c) and (d): Due to the unique nature and scope of this project, does WSDOT have any guidance beyond the City of Seattle's web site regarding calculating Building Permit fees to be imposed by the City of Seattle? Does WSDOT have any guidance for the calculation of other permit fees beyond what was supplied in the Permitting Guide of Appendix E2?	09/17/10	No.
197	Q&A #134			09/24/10	Also refer to Addendix D-27, Section 7-11.3(9) A Connections to existing water mains, Section 7-11.3(9) B Maintaining services, Section 7-11.3(9) D Temporary Water main and services, and Section 7-15 Water service connection transfers. Please clarify for this project the work performed by the public utility for the adjustment work. The referenced sections indicate the Water Utility will perform the work for connections to the mainline, maintaining services, installing temporary mains and services required to replace a section of mainline, and performing work for the water services. (including any new meter , meter vaults, etc). Please confirm this work will be performed by Water utility and the costs are not to be included in the adjustment cost.	10/01/10	The circumstances and work to be performed by SPU crews is stated in Appendix D-27. The Design-Builder does not have cost responsibility for work performed by SPU crews. See responses in Question 198.

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198	Q&A #134			09/24/10	We require further clarification regarding the work performed by SPU on utility adjustment work. Please confirm the following is the correct division of work. We assume that if the work is performed by SPU, the cost of the SPU performed work shall be excluded from the DB bid price. 1. DB will design and install all new settlement tolerant watermains, service piping and hydrants. DB will design and install all temporary mains. 2. SPU will review the DB construction documents, provide inspection, and take purity tests. 3. SPU will perform all temp cut and caps of existing watermains, with the DB providing excavation, shoring and all materials. SPU will coordinate all outages with it's customers. 4. SPU will perform all service transfers from existing to new service pipes and from existing to temporary piping if required with the DB providing excavation, shoring and all materials. 5. SPU will perform all final connections of existing to new watermains, with the DB providing excavation, shoring and all materials. 6. SPU will provide water for flushing, and will provide all new hydrants to DB for installation.	10/01/10	(1) DB has work responsibility and cost responsibility for all design and installation of permanent and temporary water mains. (2) SPU will review the DB construction documents, provide inspection, and take purity tests. D-B has no cost responsiblity for these. (3) Correct. The D-B is also expected to support SPU with the outreach effort with affected customers. (4) Correct. D-B is also responsible for traffic control during service cut-overs. SPU-incurred costs for this effort are WSDOT's responsibility. (5) See (4) above. (6) SPU will provide water for flushing, and will provide all new hydrants to DB for installation. In each case, WSDOT has cost responsiblity. It is important to note that Service Agreements, where worked is performed by SPU, are the cost responsiblitiy of the D-B, as described in TR Section 2.56. This includes new water services not related to the tunnel or opeartions building, and temporary service connections required for construction operations (equipment needs, slurry plants, construction trailers, etc)
199	Q&A #134			09/24/10	Please confirm that all work performed by SPU sewer and drainage to support the project including review of DB submittals and field inspection of work to effect adjustments shall be excluded from the DB bid price.	10/01/10	Review of D-B submittals, including materials and design submittals, should not be included in the D-B's bid price, with the exception of submittals related to new service agreements.
200	TR	2.54.6.13.2	2.54-17	09/24/10	Please confirm that the requirement to install and monitor acoustic leak detection applies to the newly installed settlement tolerant watermain pipes as well as pipes not being replaced.	10/01/10	Correct. Leak detection is required on all new and existing watermain pipes.
201	TR	2.40.4.3	2.40-9	09/24/10	2.40 requires 1 TB of data storage for every nine cameras and calls for recording of video of all cameras in the tunnel. Please confirm that this includes recording video from the incident detection cameras.	10/01/10	TR Section 2.40 refers solely to security cameras. An upcoming addendum will remove the informational bullet identifying the ratio of cameras to disk storage space. The bullet with performance requirement for 30 days will be modified to 21 days of recorded video with cameras recorded continuously at 3 fps and a compression ratio of 25. Please note that in TR Section 2.42, which identifies the server requirements, data storage is in a RAID array.
202	TR	2.42.6.3 & 2.42.8.3	2.42-17 & 18	09/24/10	2.42.6.3 requires video storage to be mirrored at redundant equipment in the two buildings. This would provide WSDOT four copies of the video from each of the cameras. Please confirm that the intent is to provide four copies of the video from each camera in the tunnel.	10/01/10	TR Section 2.42.6.3 requires that the system "shall store data and video at the primary data storage site" and "mirror the data at the redundant equipment" at the other building. The requirement is for two copies of video, not four. The DB has the flexibility to put security video on one server, and its redundant counterpart in the other building, and traffic camera video on the second server, and its redundant counterpart, or any other logical distribution between the two servers, provided the redundant servers are organized in the same manner. If a server develops a problem, redundant storage is unavailable for only one quarter of the data until the server is replaced, and no data is lost.
203	Appendix B6	260513.19 1.5B		09/28/10	The AEIC standard listed, CS6 is not current, and it is suggested that the standard AEIC CS8, current edition, be used	10/01/10	The most current standard shall be used. An addendum will be forthcoming to correct this.
204	Appendix B6	260513.19 1.5C		09/28/10	The ICEA standard listed, S-68-516/WC8 is not current, and it is suggested that the standard ICEA S-93-639/NEMA WC 74, current edition, be used.	10/01/10	Agree ICEA S-93-639/NEMA WC 74 is the correct standard. An addendum will be forthcoming to correct this.

Washington State Department of Transportation
SR99 Bored Tunnel Alternative Design-Build Project

RFP Proposer Questions and Answers, October 8, 2010

Refer to Instructions To Proposers Sections 2.7 and 2.8

Highlighted cells indicate that new information is provided.

Item Number	Document	Section	Page	Date Initiated	Comment/Question	Response Date	Response
205	Appendix B6	260513.19 2.1 A3; 2.1E1		09/28/10	The requirement that the medium voltage wire be low smoke, zero halogen, conflicts with 260513.19, Part 2, 2.1, E., 1. – where the construction is described using a polyethylene (PE) jacket. Please clarify which requirement takes precedence.	10/01/10	The requirement for low smoke zero halogen takes precedence.
206	Appendix B6	260513.19 2.1D1		09/28/10	Suggest that certified qualification tests to AEIC CS8, current edition, be used.	10/01/10	Agree. An addendum will be forthcoming to correct this.
207	Appendix B6	260513.19 2.1F2		09/28/10	AEIC CS8 addresses conductor requirements to meet ANSI/ICEA, not AEIC 1 If the current standard CS8 is used, AEIC 1 should be replaced with ANSI/ICEA.	10/01/10	Agree. An addendum will be forthcoming to correct this.
208	Appendix B6	260513.19 2.1Ha		09/28/10	Reference is made to ICEA-S-68-516 and should reference ICEA S-93-639/NEMA WC 74, current edition.	10/01/10	Agree ICEA S-93-639/NEMA WC 74 is the correct standard. An addendum will be forthcoming to correct this.
209	TR & Appendix M8	2.54.9.2.10 & CM001 - CM008	2.54-38	10/05/10	The TR requirements state that "approximate" MPBX locations are shown in Appendix M8. Appendix M8 identifies 22 MPBX units to be located within buildings, including 5 within the Federal Building. Gaining access to buildings, particularly the Federal Building, and coring through the floors and foundations is anticipated to be problematic, costly, and time consuming. Will WSDOT allow the Design Builder to adjust the locations of the MPBX units that are depicted in Appendix M8 such that they are not located within buildings?	10/08/10	Minor adjustment in instrument locations (less than 15 feet) to improve instrument access/reading, lower impact to building owners/tenants, and reduce WSDOT procured rights-of-entry is expected. Larger instrument movements may be allowed on a case-by-case basis, and only if D-B provides evidence that monitoring and data collection is sufficient enough to inform decisions on TBM operation and assess building movement.
210	Appendix Q2		Q2-1	10/5/2010	Appendix Q2 states that both Quality Control (QC) and Quality Assurance (QA) must report to the Project Quality Manager (PQM). It is a rather standard practice in the construction industry to separate who QC and QA report to in order to provide a redundant level of control. It would be our preference to have QC report to an independent branch from both the PQM and construction "production" / Construction Manager that would be named Engineering Office, whose task would be to establish from an engineering perspective the requirements for fabricated elements and procedures for quality testing and for performing the testing. In other words, the Engineering Office would be responsible for QC and PQM for QA. Q1. Would it be acceptable to separate QC from QA Organization's line of reporting and have QC Organization, including QC Testers & Personnel, report to the Engineer Office Manager and not to the PQM? Q2. Would it also be acceptable to differentiate Fabrication Quality Construction Manager from Fabrication Quality Assurance Manager following the same line of reasoning?	10/08/10	Q1. Yes. Q2. Yes